



REPORT No.: SZ23080239W01

TEST REPORT

APPLICANT : Orbbec Inc.

PRODUCT NAME : Wireless Bridge

MODEL NAME : WBF1

BRAND NAME : ORBBEC

FCC ID : 2A2CLWBF1

STANDARD(S) : 47 CFR Part 15 Subpart E

RECEIPT DATE : 2023-08-28

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Change History		
Version	Date	Reason for change
1.0	2023-09-28	First edition

1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	No deviation
2	ANSI C63.10	Duty Cycle of the Test Signal	Sep. 06, 2023	He Yuyang	PASS	No deviation
3	15.407(a)	Maximum Conducted Output Power	Sep. 26, 2023	He Yuyang	PASS	No deviation
4	15.407(a) (e)	Emission Bandwidth	Sep. 06, 2023	He Yuyang	PASS	No deviation
5	15.407(a)	Peak Power Spectral Density	Sep. 06, 2023	He Yuyang	PASS	No deviation
6	15.407(g)	Frequency Stability	Sep. 06, 2023	He Yuyang	PASS	No deviation
7	15.207	Conducted Emission	Sep. 07, 2023	Wang Deyong	PASS	No deviation
8	15.407(b)	Restricted Frequency Bands	Sep. 15, 2023	Gao Jianrou	PASS	No deviation
9	15.407(b)	Radiated Emission	Sep. 15, 2023	Gao Jianrou	PASS	No deviation

Note 1: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2013.

Note 2: These RF tests were performed according to the method of measurements prescribed in KDB789033 D02 v02r01.

Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.



1.1. Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart E Radio Frequency Devices



1.2. Test Equipment List

1.2.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2022.03.01	2023.02.28
USB Wideband Power Sensor	MY54180008	U2021XA	Agilent	2022.10.11	2023.10.10
Temperature Chamber	12108015	DTL-003S 101	YOMA	2022.10.10	2023.10.09
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Attenuator	MTJ6004-10	10dB	MTJ cooperation	N/A	N/A

1.2.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2023.02.09	2024.02.08
LISN	8127449	NSLK 8127	Schwarzbeck	2023.02.21	2024.02.20
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2023.06.27	2024.06.26
RF Coaxial Cable (DC-100MHz)	BNC	MRE04	Qualwave	N/A	N/A

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
Morlab EMCR	Morlab	V1.2
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

**1.2.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2023.06.21	2024.06.20
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2022.05.25	2025.05.24
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2022.07.13	2025.07.12
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2022.07.14	2025.07.13
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2023.06.26	2024.06.27
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2023.06.26	2024.06.27
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2022.07.23	2023.07.22
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-K K-0.5	Qualwave	2023.07.04	2024.07.03
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-K KF-2	Qualwave	2023.07.04	2024.07.03
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-N N-5	Qualwave	2023.07.04	2024.07.03
Notch Filter	N/A	WRCG-5150-5350	Wainwright	N/A	N/A
Notch Filter	N/A	WRCG-5725-5850	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.05.10	2025.05.09



1.3. Measurement Uncertainty

Test Items	Uncertainty	Remark
Peak Output Power	$\pm 2.22\text{dB}$	Confidence levels of 95%
Power Spectral Density	$\pm 2.22\text{dB}$	Confidence levels of 95%
Bandwidth	$\pm 5\%$	Confidence levels of 95%
Restricted Frequency Bands	$\pm 5\%$	Confidence levels of 95%
Radiated Emission	$\pm 2.95\text{dB}$	Confidence levels of 95%
Conducted Emission	$\pm 2.44\text{dB}$	Confidence levels of 95%

1.4. Testing Laboratory

Laboratory Name	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone	+86 755 36698555
Facsimile	+86 755 36698525
FCC Designation Number	CN1192
FCC Test Firm Registration Number	226174

2. General Description

2.1. Information of Applicant and Manufacturer

Applicant	Orbbec Inc.
Applicant Address	12/F, Hi-Tech Zone Union Headquarters Building, No.63 Xuefu Road, Nanshan District, Shenzhen, Guangdong P. R. China
Manufacturer	Orbbec Inc.
Manufacturer Address	12/F, Hi-Tech Zone Union Headquarters Building, No.63 Xuefu Road, Nanshan District, Shenzhen, Guangdong P. R. China

2.2. Information of EUT

Product Name:	Wireless Bridge	
Sample No.:	42#	
Hardware Version:	V1.1	
Software Version:	V1.1.5	
Modulation Technology:	OFDM, OFDMA	
Modulation Mode:	802.11a, 802.11n (HT20), 802.11n (HT40) 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80) 802.11ax (HEW20), 802.11ax (HEW40), 802.11ax (HEW80)	
Operating Frequency Range:	5180MHz-5240MHz; 5745MHz-5825MHz	
Antenna Type:	PCB Antenna	
Antenna Gain:	ANT 1: 1.8dBi; ANT 2: 2.89dBi	
Directional Gain:	5.18dBi Note 3	
Accessory Information:	Adapter	
	Brand Name:	N/A
	Model No.:	OB-2
	Serial No.:	N/A

Note 1: The EUT supports a MIMO function. Physically, the EUT provides two completed transmitters and two receivers for 802.11n, 802.11ac and 802.11ax modulation mode.

Modulation Mode:	TX Function
802.11a	1TX
802.11n	2TX
802.11ac	2TX

Note 2: According to KDB 662911 D01, the directional gain = $10\log[(10^{G0/20} + 10^{G1/20})^2/2] = 5.18\text{dBi}$.

Note 3: All radiation test items for 802.11n, 802.11ac and 802.11ax modulation mode operate at



MIMO mode during the test. Other modulation mode operate at SISO mode, both of the two antennas were tested separately, we only recorded the worst test result(ANT2) in this report.

Note 4: We use the dedicated software to control the EUT continuous transmission.

Note 5: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



2.3.Channel List of EUT

(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
80MHz	42	5210		
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825		
40MHz	151	5775	159	5795
80MHz	155	5775		

Note 1: The black bold channels were selected for test.

2.4. Test Configuration of EUT

2.4.1. Modulation Type and Data Rate of EUT

Mode	Bandwidth (MHz)	Modulation Technology	Modulation Type	Data Rate	RU Size
802.11a	20	OFDM	DBPSK	1/2/5.5/11Mbps	N/A
			DQPSK		
			CCK		
802.11n	20/40 (HT20/40)	OFDM	BPSK	MCS0~MCS7	N/A
			QPSK		
			16QAM		
			64QAM		
802.11ac	20/40/80 (VHT20/40/80)	OFDM	BPSK	MCS0~MCS9	N/A
			QPSK		
			16QAM		
			64QAM		
			256QAM		
802.11ax	20/40/80 (HEW20/40/80)	OFDMA	BPSK	MCS0~MCS11	N/A
			QPSK		
			16QAM		
			64QAM		
			256QAM		
			1024QAM		

Note 1: The worst-case mode (bold face) in all data rates has been determined during the pre-scan, only the test data of the worst-case were recorded in this report.

Note 2: The ru allocation for 802.11ax, only full ru mode is supported.

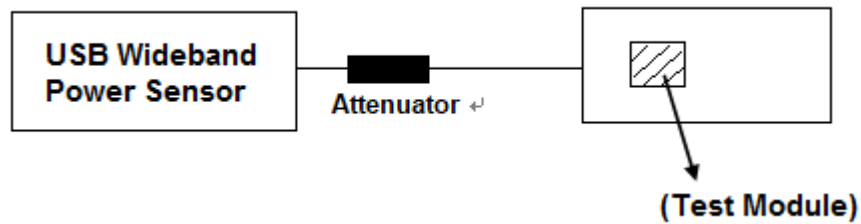
2.5. Test Conditions

Temperature (°C)	15-35
Relative Humidity (%)	30-60
Atmospheric Pressure (kPa)	86-106

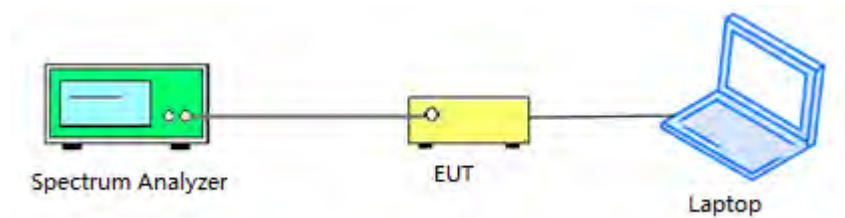
2.6. Test Setup Layout Diagram

2.6.1. Conducted Measurement

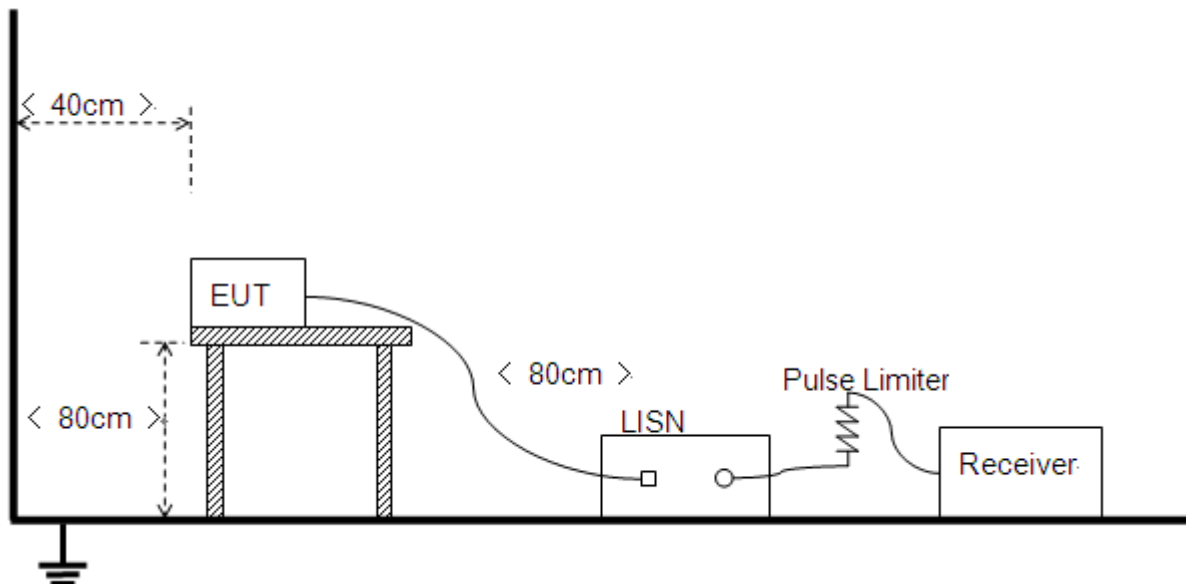
For power item that BW below 80MHz system:



For power item that BW equal or above 80MHz and other items:

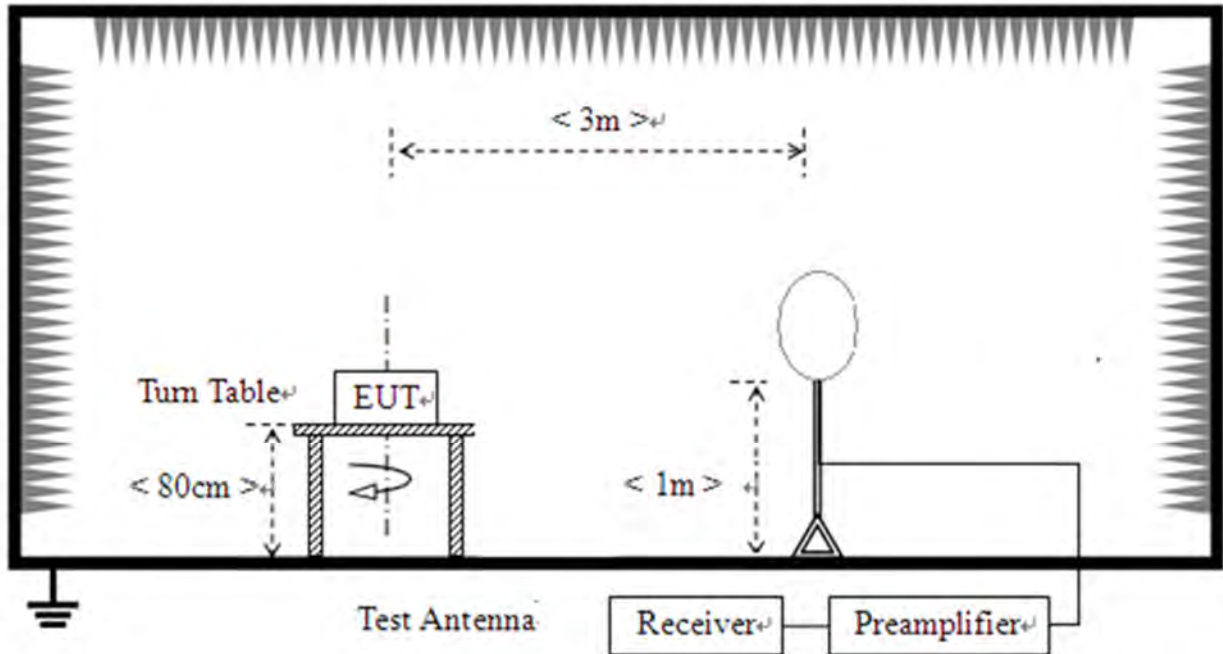


2.6.2. Conducted Emission Measurement

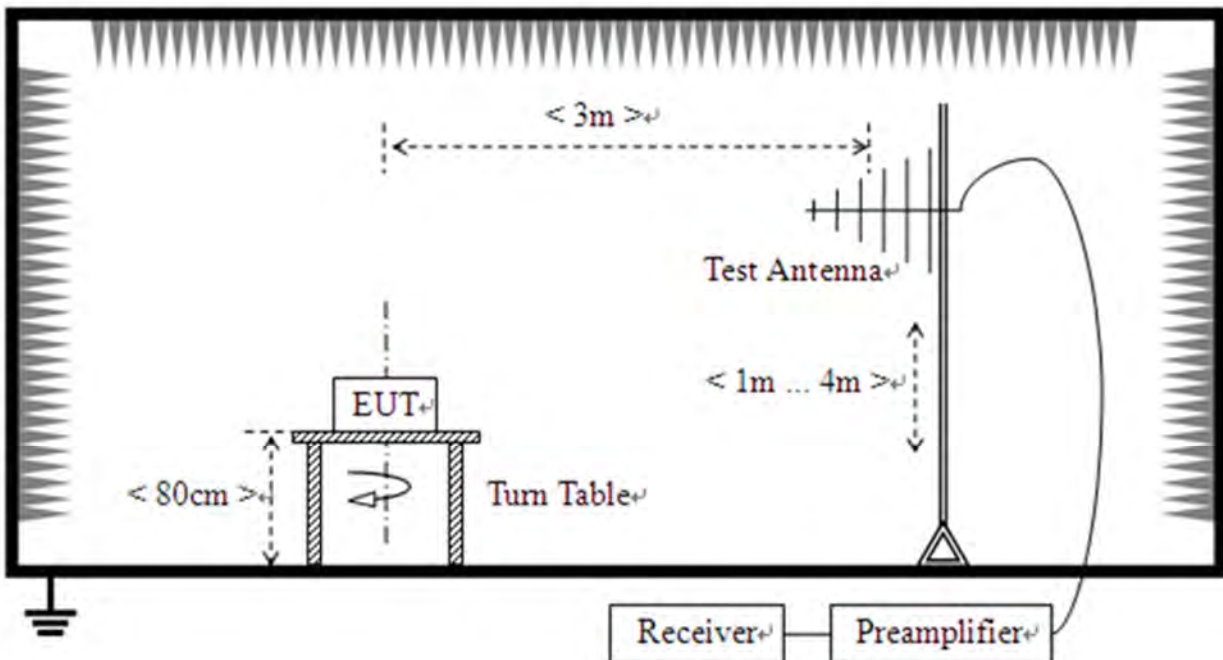


2.6.3.Radiation Measurement

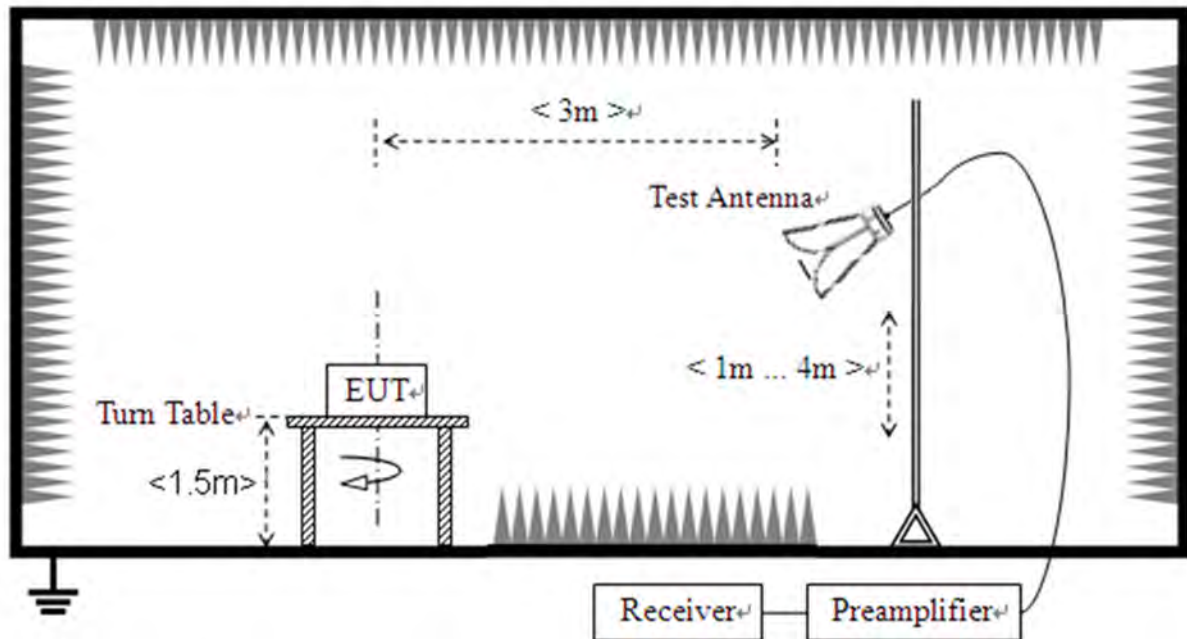
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz





3. Test Results

3.1. Antenna Requirement

3.1.1. Requirement

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.1.2. Test Result

The EUT has an internal antenna coupled with the I-PEX connector. Please refer to the EUT internal photos.



3.2. Duty Cycle of Test Signal

3.2.1. Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration (T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e., no transmitter OFF-time is to be considered).

When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this sub clause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than $\pm 2\%$; otherwise, the duty cycle is considered to be non constant.

3.2.2. Test Result

Refer to Annex A.1 in this report.

3.3. Maximum Conducted Output Power

3.3.1. Requirement

(1) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250mW or $11\text{dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

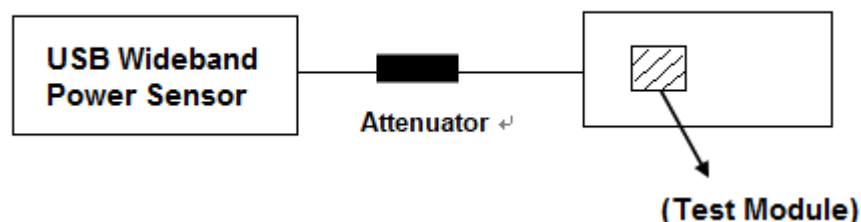
(4) According to KDB662911D01 Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.

(5) According to KDB 662911 D01, the directional gain = $G_{\text{ANT}} + 10\log(N_{\text{ANT}})\text{dBi}$, where G_{ANT} is the antenna gain in dBi, N_{ANT} is the number of outputs.

3.3.2. Test Procedures

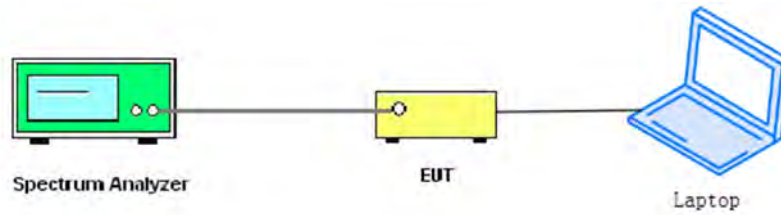
Section E) 3) of KDB 789033 defines a methodology using a USB Wideband Power Sensor.

Test Setup:



The EUT (Equipment under the test) which is coupled to the USB Wideband Power Sensor; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in USB Wideband Power Sensor.

For ac (VHT80) mode power



The EUT (Equipment under the test) is coupled to the Spectrum analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in Spectrum analyzer.

3.3.3.Test Result

Refer to Annex A.2 in this report.



3.4. Emission Bandwidth

3.4.1. Requirement

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement. Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.4.1. Test Procedures

1. KDB 789033 Section C) 1) Emission Bandwidth was used in order to prove compliance
 - a) Set RBW = approximately 1% of the emission bandwidth.
 - b) Set VBW > RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
2. KDB 789033 Section C) 2) minimum emission bandwidth for the band 5.725-5.85GHz was used in order to prove compliance.

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

 - a) Set RBW = 100 kHz.
 - b) Set video bandwidth (VBW) $\geq 3 \times$ RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



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3.4.2.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.4.3.Test Result

Refer to Annex A.3 in this report.

3.5. Peak Power Spectral Density

3.5.1. Requirement

(1) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

(3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30dBm in any 500kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

(4) According to KDB662911D01 Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.

(5) According to KDB 662911 D01, the directional gain = $G_{ANT} + 10\log(N_{ANT})$ dBi, where G_{ANT} is the antenna gain in dBi, N_{ANT} is the number of outputs.

3.5.2. Test Procedures

KDB 789033 Section F) Maximum Power Spectral Density (PSD) Method SA-3 was used in order to prove compliance

- 1) Set span to encompass the entire 26-dB emission bandwidth
- 2) Set RBW = 1MHz. Set VBW $\geq$ 3MHz
- 3) Number of points in sweep $\geq$ 2 Span / RBW. Sweep time = auto
- 4) Detector = Average
- 5) Trace mode=Max hold

Record the max value

3.5.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.5.4. Test Result

Refer to Annex A.4 in this report.



3.6. Frequency Stability

3.6.1. Requirement

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.6.2. Test Procedures

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between 5°C to 40°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

3.6.3. Test Result

Refer to Annex A.5 in this report.

3.7. Conducted Emission

3.7.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.7.2. Test Procedures

The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

3.7.3. Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.7.4. Test Result

Refer to Annex A.7 in this report.

3.8. Restricted Frequency Bands

3.8.1. Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m



Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.8.2.Test Procedures

The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

KDB 789033 Section H) 3)5)6(d)) was used in order to prove compliance

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

3.8.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.8.4.Test Result

Refer to Annex A.8 in this report.

3.9. Radiated Emission

3.9.1. Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3



For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.9.2.Test Procedures

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

3.9.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.9.4.Test Result

Refer to Annex A.9 in this report.



Annex A Test Data and Result

A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a SISO	5180	Ant1	96.14	0.17	0.72
NVNT	a SISO	5180	Ant2	96.01	0.18	0.72
NVNT	a SISO	5220	Ant1	96.01	0.18	0.72
NVNT	a SISO	5220	Ant2	96.14	0.17	0.72
NVNT	a SISO	5240	Ant1	96.01	0.18	0.72
NVNT	a SISO	5240	Ant2	96.15	0.17	0.72
NVNT	a SISO	5745	Ant1	96.01	0.18	0.72
NVNT	a SISO	5745	Ant2	96.14	0.17	0.72
NVNT	a SISO	5785	Ant1	96.14	0.17	0.72
NVNT	a SISO	5785	Ant2	96.01	0.18	0.72
NVNT	a SISO	5825	Ant1	96.01	0.18	0.72
NVNT	a SISO	5825	Ant2	96.01	0.18	0.72
NVNT	n20 SISO	5180	Ant1	95.89	0.18	0.76
NVNT	n20 SISO	5180	Ant2	95.75	0.19	0.76
NVNT	n20 MIMO	5180	Sum	92.1	0.36	1.48
NVNT	n20 SISO	5220	Ant1	95.75	0.19	0.76
NVNT	n20 SISO	5220	Ant2	95.89	0.18	0.76
NVNT	n20 MIMO	5220	Sum	92.35	0.35	1.48
NVNT	n20 SISO	5240	Ant1	95.75	0.19	0.76
NVNT	n20 SISO	5240	Ant2	95.89	0.18	0.76
NVNT	n20 MIMO	5240	Sum	92.1	0.36	1.48
NVNT	n20 SISO	5745	Ant1	95.75	0.19	0.76
NVNT	n20 SISO	5745	Ant2	95.89	0.18	0.76
NVNT	n20 MIMO	5745	Sum	92.1	0.36	1.48
NVNT	n20 SISO	5785	Ant1	95.89	0.18	0.76
NVNT	n20 SISO	5785	Ant2	95.75	0.19	0.76
NVNT	n20 MIMO	5785	Sum	92.1	0.36	1.48
NVNT	n20 SISO	5825	Ant1	95.75	0.19	0.76
NVNT	n20 SISO	5825	Ant2	95.89	0.18	0.76
NVNT	n20 MIMO	5825	Sum	92.35	0.35	1.48
NVNT	n40 SISO	5190	Ant1	91.78	0.37	1.54
NVNT	n40 SISO	5190	Ant2	91.78	0.37	1.54



NVNT	n40 MIMO	5190	Sum	86.14	0.65	2.87
NVNT	n40 SISO	5230	Ant1	92.05	0.36	1.54
NVNT	n40 SISO	5230	Ant2	91.78	0.37	1.54
NVNT	n40 MIMO	5230	Sum	86.14	0.65	2.87
NVNT	n40 SISO	5755	Ant1	92.05	0.36	1.54
NVNT	n40 SISO	5755	Ant2	91.78	0.37	1.54
NVNT	n40 MIMO	5755	Sum	86.14	0.65	2.87
NVNT	n40 SISO	5795	Ant1	92.05	0.36	1.54
NVNT	n40 SISO	5795	Ant2	91.78	0.37	1.54
NVNT	n40 MIMO	5795	Sum	85.71	0.67	2.87
NVNT	ac20 SISO	5180	Ant1	89.55	0.48	2.08
NVNT	ac20 SISO	5180	Ant2	89.55	0.48	2.08
NVNT	ac20 MIMO	5180	Sum	92.43	0.34	1.46
NVNT	ac20 SISO	5220	Ant1	89.55	0.48	2.08
NVNT	ac20 SISO	5220	Ant2	89.22	0.5	2.08
NVNT	ac20 MIMO	5220	Sum	92.43	0.34	1.46
NVNT	ac20 SISO	5240	Ant1	89.22	0.5	2.08
NVNT	ac20 SISO	5240	Ant2	89.55	0.48	2.08
NVNT	ac20 MIMO	5240	Sum	92.18	0.35	1.46
NVNT	ac20 SISO	5745	Ant1	89.22	0.5	2.08
NVNT	ac20 SISO	5745	Ant2	89.22	0.5	2.08
NVNT	ac20 MIMO	5745	Sum	92.43	0.34	1.46
NVNT	ac20 SISO	5785	Ant1	89.55	0.48	2.08
NVNT	ac20 SISO	5785	Ant2	89.55	0.48	2.08
NVNT	ac20 MIMO	5785	Sum	92.43	0.34	1.46
NVNT	ac20 SISO	5825	Ant1	89.55	0.48	2.08
NVNT	ac20 SISO	5825	Ant2	89.55	0.48	2.08
NVNT	ac20 MIMO	5825	Sum	92.43	0.34	1.46
NVNT	ac40 SISO	5190	Ant1	92.13	0.36	1.52
NVNT	ac40 SISO	5190	Ant2	91.88	0.37	1.52
NVNT	ac40 MIMO	5190	Sum	85.85	0.66	2.84
NVNT	ac40 SISO	5230	Ant1	91.88	0.37	1.52
NVNT	ac40 SISO	5230	Ant2	92.13	0.36	1.52
NVNT	ac40 MIMO	5230	Sum	86.27	0.64	2.84
NVNT	ac40 SISO	5755	Ant1	91.88	0.37	1.52
NVNT	ac40 SISO	5755	Ant2	92.13	0.36	1.52
NVNT	ac40 MIMO	5755	Sum	85.85	0.66	2.84
NVNT	ac40 SISO	5795	Ant1	92.13	0.36	1.52



NVNT	ac40 SISO	5795	Ant2	91.88	0.37	1.52
NVNT	ac40 MIMO	5795	Sum	86.27	0.64	2.84
NVNT	ac80 SISO	5210	Ant1	77.05	1.13	5.32
NVNT	ac80 SISO	5210	Ant2	85.26	0.69	3.09
NVNT	ac80 MIMO	5210	Sum	76.42	1.17	5.32
NVNT	ac80 SISO	5775	Ant1	77.05	1.13	5.32
NVNT	ac80 SISO	5775	Ant2	85.26	0.69	3.09
NVNT	ac80 MIMO	5775	Sum	77.05	1.13	5.32
NVNT	ax20 SISO	5180	Ant1	88.48	0.53	2.33
NVNT	ax20 SISO	5180	Ant2	88.07	0.55	2.34
NVNT	ax20 MIMO	5180	Sum	78.46	1.05	4.9
NVNT	ax20 SISO	5220	Ant1	88.07	0.55	2.34
NVNT	ax20 SISO	5220	Ant2	88.48	0.53	2.33
NVNT	ax20 MIMO	5220	Sum	78.46	1.05	4.9
NVNT	ax20 SISO	5240	Ant1	88.07	0.55	2.34
NVNT	ax20 SISO	5240	Ant2	88.48	0.53	2.33
NVNT	ax20 MIMO	5240	Sum	78.46	1.05	4.9
NVNT	ax20 SISO	5745	Ant1	88.07	0.55	2.34
NVNT	ax20 SISO	5745	Ant2	88.48	0.53	2.33
NVNT	ax20 MIMO	5745	Sum	78.46	1.05	4.9
NVNT	ax20 SISO	5785	Ant1	88.07	0.55	2.34
NVNT	ax20 SISO	5785	Ant2	88.48	0.53	2.33
NVNT	ax20 MIMO	5785	Sum	78.46	1.05	4.9
NVNT	ax20 SISO	5825	Ant1	88.48	0.53	2.33
NVNT	ax20 SISO	5825	Ant2	88.48	0.53	2.33
NVNT	ax20 MIMO	5825	Sum	78.46	1.05	4.9
NVNT	ax40 SISO	5190	Ant1	84.78	0.72	3.21
NVNT	ax40 SISO	5190	Ant2	84.78	0.72	3.21
NVNT	ax40 MIMO	5190	Sum	90.55	0.43	1.8
NVNT	ax40 SISO	5230	Ant1	84.32	0.74	3.21
NVNT	ax40 SISO	5230	Ant2	84.78	0.72	3.21
NVNT	ax40 MIMO	5230	Sum	90.88	0.42	1.79
NVNT	ax40 SISO	5755	Ant1	84.32	0.74	3.21
NVNT	ax40 SISO	5755	Ant2	84.78	0.72	3.21
NVNT	ax40 MIMO	5755	Sum	90.88	0.42	1.79
NVNT	ax40 SISO	5795	Ant1	84.32	0.74	3.21
NVNT	ax40 SISO	5795	Ant2	84.32	0.74	3.21
NVNT	ax40 MIMO	5795	Sum	90.55	0.43	1.8



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NVNT	ax80 SISO	5210	Ant1	76.8	1.15	5.21
NVNT	ax80 SISO	5210	Ant2	83.62	0.78	3.38
NVNT	ax80 MIMO	5210	Sum	76.8	1.15	5.21
NVNT	ax80 SISO	5775	Ant1	87.61	0.57	2.44
NVNT	ax80 SISO	5775	Ant2	83.62	0.78	3.38
NVNT	ax80 MIMO	5775	Sum	76.8	1.15	5.21

**A.2. Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	a SISO	5180	Ant1	11.49	0.01409	30	Pass
NVNT	a SISO	5180	Ant2	11.66	0.01466	30	Pass
NVNT	a SISO	5220	Ant1	11.81	0.01517	30	Pass
NVNT	a SISO	5220	Ant2	11.74	0.01493	30	Pass
NVNT	a SISO	5240	Ant1	11.4	0.0138	30	Pass
NVNT	a SISO	5240	Ant2	11.66	0.01466	30	Pass
NVNT	a SISO	5745	Ant1	11.19	0.01315	30	Pass
NVNT	a SISO	5745	Ant2	11.24	0.0133	30	Pass
NVNT	a SISO	5785	Ant1	11.48	0.01406	30	Pass
NVNT	a SISO	5785	Ant2	11.66	0.01466	30	Pass
NVNT	a SISO	5825	Ant1	10.65	0.01161	30	Pass
NVNT	a SISO	5825	Ant2	10.77	0.01194	30	Pass
NVNT	n20 SISO	5180	Ant1	11.6	0.01445	30	Pass
NVNT	n20 SISO	5180	Ant2	11.02	0.01265	30	Pass
NVNT	n20 MIMO	5180	Ant1	7.69	0.00587	30	Pass
NVNT	n20 MIMO	5180	Ant2	8.35	0.00684	30	Pass
NVNT	n20 MIMO	5180	Sum	11.04	0.01271	30	Pass
NVNT	n20 SISO	5220	Ant1	11.68	0.01472	30	Pass
NVNT	n20 SISO	5220	Ant2	11.03	0.01268	30	Pass
NVNT	n20 MIMO	5220	Ant1	8.06	0.0064	30	Pass
NVNT	n20 MIMO	5220	Ant2	8.54	0.00714	30	Pass
NVNT	n20 MIMO	5220	Sum	11.32	0.01354	30	Pass
NVNT	n20 SISO	5240	Ant1	11.32	0.01355	30	Pass
NVNT	n20 SISO	5240	Ant2	10.96	0.01247	30	Pass
NVNT	n20 MIMO	5240	Ant1	7.67	0.00585	30	Pass
NVNT	n20 MIMO	5240	Ant2	8.31	0.00678	30	Pass
NVNT	n20 MIMO	5240	Sum	11.01	0.01262	30	Pass
NVNT	n20 SISO	5745	Ant1	10.09	0.01021	30	Pass
NVNT	n20 SISO	5745	Ant2	10.62	0.01153	30	Pass
NVNT	n20 MIMO	5745	Ant1	7.71	0.0059	30	Pass
NVNT	n20 MIMO	5745	Ant2	8.58	0.00721	30	Pass
NVNT	n20 MIMO	5745	Sum	11.18	0.01311	30	Pass
NVNT	n20 SISO	5785	Ant1	10.46	0.01112	30	Pass



NVNT	n20 SISO	5785	Ant2	10.79	0.01199	30	Pass
NVNT	n20 MIMO	5785	Ant1	8.19	0.00659	30	Pass
NVNT	n20 MIMO	5785	Ant2	9.07	0.00807	30	Pass
NVNT	n20 MIMO	5785	Sum	11.66	0.01466	30	Pass
NVNT	n20 SISO	5825	Ant1	8.96	0.00787	30	Pass
NVNT	n20 SISO	5825	Ant2	9.79	0.00953	30	Pass
NVNT	n20 MIMO	5825	Ant1	7.13	0.00516	30	Pass
NVNT	n20 MIMO	5825	Ant2	8.15	0.00653	30	Pass
NVNT	n20 MIMO	5825	Sum	10.68	0.0117	30	Pass
NVNT	n40 SISO	5190	Ant1	11.65	0.01462	30	Pass
NVNT	n40 SISO	5190	Ant2	11.68	0.01472	30	Pass
NVNT	n40 MIMO	5190	Ant1	7.71	0.0059	30	Pass
NVNT	n40 MIMO	5190	Ant2	8.41	0.00693	30	Pass
NVNT	n40 MIMO	5190	Sum	11.09	0.01284	30	Pass
NVNT	n40 SISO	5230	Ant1	11.49	0.01409	30	Pass
NVNT	n40 SISO	5230	Ant2	11.58	0.01439	30	Pass
NVNT	n40 MIMO	5230	Ant1	7.73	0.00593	30	Pass
NVNT	n40 MIMO	5230	Ant2	8.39	0.0069	30	Pass
NVNT	n40 MIMO	5230	Sum	11.08	0.01283	30	Pass
NVNT	n40 SISO	5755	Ant1	10.96	0.01247	30	Pass
NVNT	n40 SISO	5755	Ant2	11.15	0.01303	30	Pass
NVNT	n40 MIMO	5755	Ant1	8.27	0.00671	30	Pass
NVNT	n40 MIMO	5755	Ant2	8.91	0.00778	30	Pass
NVNT	n40 MIMO	5755	Sum	11.61	0.01449	30	Pass
NVNT	n40 SISO	5795	Ant1	10.48	0.01117	30	Pass
NVNT	n40 SISO	5795	Ant2	10.66	0.01164	30	Pass
NVNT	n40 MIMO	5795	Ant1	8.21	0.00662	30	Pass
NVNT	n40 MIMO	5795	Ant2	8.88	0.00773	30	Pass
NVNT	n40 MIMO	5795	Sum	11.57	0.01435	30	Pass
NVNT	ac20 SISO	5180	Ant1	11.51	0.01416	30	Pass
NVNT	ac20 SISO	5180	Ant2	11.59	0.01442	30	Pass
NVNT	ac20 MIMO	5180	Ant1	7.9	0.00617	30	Pass
NVNT	ac20 MIMO	5180	Ant2	8.38	0.00689	30	Pass
NVNT	ac20 MIMO	5180	Sum	11.16	0.01305	30	Pass
NVNT	ac20 SISO	5220	Ant1	11.78	0.01507	30	Pass
NVNT	ac20 SISO	5220	Ant2	11.68	0.01472	30	Pass
NVNT	ac20 MIMO	5220	Ant1	8.17	0.00656	30	Pass
NVNT	ac20 MIMO	5220	Ant2	8.53	0.00713	30	Pass



NVNT	ac20 MIMO	5220	Sum	11.36	0.01369	30	Pass
NVNT	ac20 SISO	5240	Ant1	11.38	0.01374	30	Pass
NVNT	ac20 SISO	5240	Ant2	11.59	0.01442	30	Pass
NVNT	ac20 MIMO	5240	Ant1	7.71	0.0059	30	Pass
NVNT	ac20 MIMO	5240	Ant2	8.47	0.00703	30	Pass
NVNT	ac20 MIMO	5240	Sum	11.12	0.01293	30	Pass
NVNT	ac20 SISO	5745	Ant1	10.23	0.01054	30	Pass
NVNT	ac20 SISO	5745	Ant2	10.83	0.01211	30	Pass
NVNT	ac20 MIMO	5745	Ant1	7.67	0.00585	30	Pass
NVNT	ac20 MIMO	5745	Ant2	8.52	0.00711	30	Pass
NVNT	ac20 MIMO	5745	Sum	11.13	0.01296	30	Pass
NVNT	ac20 SISO	5785	Ant1	10.49	0.01119	30	Pass
NVNT	ac20 SISO	5785	Ant2	11.05	0.01274	30	Pass
NVNT	ac20 MIMO	5785	Ant1	8.18	0.00658	30	Pass
NVNT	ac20 MIMO	5785	Ant2	9.04	0.00802	30	Pass
NVNT	ac20 MIMO	5785	Sum	11.64	0.01459	30	Pass
NVNT	ac20 SISO	5825	Ant1	8.96	0.00787	30	Pass
NVNT	ac20 SISO	5825	Ant2	10.12	0.01028	30	Pass
NVNT	ac20 MIMO	5825	Ant1	7.1	0.00513	30	Pass
NVNT	ac20 MIMO	5825	Ant2	8.1	0.00646	30	Pass
NVNT	ac20 MIMO	5825	Sum	10.64	0.01159	30	Pass
NVNT	ac40 SISO	5190	Ant1	11.59	0.01442	30	Pass
NVNT	ac40 SISO	5190	Ant2	11.62	0.01452	30	Pass
NVNT	ac40 MIMO	5190	Ant1	7.9	0.00617	30	Pass
NVNT	ac40 MIMO	5190	Ant2	8.5	0.00708	30	Pass
NVNT	ac40 MIMO	5190	Sum	11.22	0.01325	30	Pass
NVNT	ac40 SISO	5230	Ant1	11.46	0.014	30	Pass
NVNT	ac40 SISO	5230	Ant2	11.54	0.01426	30	Pass
NVNT	ac40 MIMO	5230	Ant1	7.98	0.00628	30	Pass
NVNT	ac40 MIMO	5230	Ant2	8.56	0.00718	30	Pass
NVNT	ac40 MIMO	5230	Sum	11.29	0.01346	30	Pass
NVNT	ac40 SISO	5755	Ant1	10.95	0.01245	30	Pass
NVNT	ac40 SISO	5755	Ant2	11.15	0.01303	30	Pass
NVNT	ac40 MIMO	5755	Ant1	8.16	0.00655	30	Pass
NVNT	ac40 MIMO	5755	Ant2	8.97	0.00789	30	Pass
NVNT	ac40 MIMO	5755	Sum	11.59	0.01443	30	Pass
NVNT	ac40 SISO	5795	Ant1	10.45	0.01109	30	Pass
NVNT	ac40 SISO	5795	Ant2	10.69	0.01172	30	Pass



NVNT	ac40 MIMO	5795	Ant1	8.11	0.00647	30	Pass
NVNT	ac40 MIMO	5795	Ant2	8.94	0.00783	30	Pass
NVNT	ac40 MIMO	5795	Sum	11.56	0.01431	30	Pass
NVNT	ac80 SISO	5210	Ant1	11.31	0.01352	30	Pass
NVNT	ac80 SISO	5210	Ant2	11	0.01259	30	Pass
NVNT	ac80 MIMO	5210	Ant1	6.76	0.00474	30	Pass
NVNT	ac80 MIMO	5210	Ant2	7.42	0.00552	30	Pass
NVNT	ac80 MIMO	5210	Sum	10.11	0.01026	30	Pass
NVNT	ac80 SISO	5775	Ant1	9.74	0.00942	30	Pass
NVNT	ac80 SISO	5775	Ant2	10.22	0.01052	30	Pass
NVNT	ac80 MIMO	5775	Ant1	7.8	0.00603	30	Pass
NVNT	ac80 MIMO	5775	Ant2	8.77	0.00753	30	Pass
NVNT	ac80 MIMO	5775	Sum	11.32	0.01356	30	Pass
NVNT	ax20 SISO	5180	Ant1	11.69	0.01476	30	Pass
NVNT	ax20 SISO	5180	Ant2	11.76	0.015	30	Pass
NVNT	ax20 MIMO	5180	Ant1	8.03	0.00635	30	Pass
NVNT	ax20 MIMO	5180	Ant2	8.64	0.00731	30	Pass
NVNT	ax20 MIMO	5180	Sum	11.35	0.01366	30	Pass
NVNT	ax20 SISO	5220	Ant1	11.88	0.01542	30	Pass
NVNT	ax20 SISO	5220	Ant2	11.84	0.01528	30	Pass
NVNT	ax20 MIMO	5220	Ant1	8.19	0.00659	30	Pass
NVNT	ax20 MIMO	5220	Ant2	8.73	0.00746	30	Pass
NVNT	ax20 MIMO	5220	Sum	11.48	0.01406	30	Pass
NVNT	ax20 SISO	5240	Ant1	11.54	0.01426	30	Pass
NVNT	ax20 SISO	5240	Ant2	11.81	0.01517	30	Pass
NVNT	ax20 MIMO	5240	Ant1	7.85	0.0061	30	Pass
NVNT	ax20 MIMO	5240	Ant2	8.61	0.00726	30	Pass
NVNT	ax20 MIMO	5240	Sum	11.26	0.01336	30	Pass
NVNT	ax20 SISO	5745	Ant1	10.43	0.01104	30	Pass
NVNT	ax20 SISO	5745	Ant2	10.96	0.01247	30	Pass
NVNT	ax20 MIMO	5745	Ant1	7.96	0.00625	30	Pass
NVNT	ax20 MIMO	5745	Ant2	8.66	0.00735	30	Pass
NVNT	ax20 MIMO	5745	Sum	11.34	0.0136	30	Pass
NVNT	ax20 SISO	5785	Ant1	10.51	0.01125	30	Pass
NVNT	ax20 SISO	5785	Ant2	11.2	0.01318	30	Pass
NVNT	ax20 MIMO	5785	Ant1	8.43	0.00697	30	Pass
NVNT	ax20 MIMO	5785	Ant2	9.09	0.00811	30	Pass
NVNT	ax20 MIMO	5785	Sum	11.78	0.01508	30	Pass



NVNT	ax20 SISO	5825	Ant1	9.2	0.00832	30	Pass
NVNT	ax20 SISO	5825	Ant2	10.36	0.01086	30	Pass
NVNT	ax20 MIMO	5825	Ant1	7.32	0.0054	30	Pass
NVNT	ax20 MIMO	5825	Ant2	8.19	0.00659	30	Pass
NVNT	ax20 MIMO	5825	Sum	10.79	0.01199	30	Pass
NVNT	ax40 SISO	5190	Ant1	11.77	0.01503	30	Pass
NVNT	ax40 SISO	5190	Ant2	11.83	0.01524	30	Pass
NVNT	ax40 MIMO	5190	Ant1	7.97	0.00627	30	Pass
NVNT	ax40 MIMO	5190	Ant2	8.53	0.00713	30	Pass
NVNT	ax40 MIMO	5190	Sum	11.27	0.01339	30	Pass
NVNT	ax40 SISO	5230	Ant1	11.7	0.01479	30	Pass
NVNT	ax40 SISO	5230	Ant2	11.79	0.0151	30	Pass
NVNT	ax40 MIMO	5230	Ant1	7.9	0.00617	30	Pass
NVNT	ax40 MIMO	5230	Ant2	8.5	0.00708	30	Pass
NVNT	ax40 MIMO	5230	Sum	11.22	0.01325	30	Pass
NVNT	ax40 SISO	5755	Ant1	10.86	0.01219	30	Pass
NVNT	ax40 SISO	5755	Ant2	11.23	0.01327	30	Pass
NVNT	ax40 MIMO	5755	Ant1	8.39	0.0069	30	Pass
NVNT	ax40 MIMO	5755	Ant2	9.15	0.00822	30	Pass
NVNT	ax40 MIMO	5755	Sum	11.8	0.01512	30	Pass
NVNT	ax40 SISO	5795	Ant1	10.5	0.01122	30	Pass
NVNT	ax40 SISO	5795	Ant2	10.95	0.01245	30	Pass
NVNT	ax40 MIMO	5795	Ant1	8.34	0.00682	30	Pass
NVNT	ax40 MIMO	5795	Ant2	9.35	0.00861	30	Pass
NVNT	ax40 MIMO	5795	Sum	11.88	0.01543	30	Pass
NVNT	ax80 SISO	5210	Ant1	11.25	0.01334	30	Pass
NVNT	ax80 SISO	5210	Ant2	11.25	0.01334	30	Pass
NVNT	ax80 MIMO	5210	Ant1	7.32	0.0054	30	Pass
NVNT	ax80 MIMO	5210	Ant2	7.87	0.00612	30	Pass
NVNT	ax80 MIMO	5210	Sum	10.61	0.01152	30	Pass
NVNT	ax80 SISO	5775	Ant1	10.56	0.01138	30	Pass
NVNT	ax80 SISO	5775	Ant2	10.65	0.01161	30	Pass
NVNT	ax80 MIMO	5775	Ant1	8.11	0.00647	30	Pass
NVNT	ax80 MIMO	5775	Ant2	9.03	0.008	30	Pass
NVNT	ax80 MIMO	5775	Sum	11.6	0.01447	30	Pass

**A.3. Emission Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a SISO	5180	Ant1	26.7
NVNT	a SISO	5180	Ant2	25.835
NVNT	a SISO	5220	Ant1	21.366
NVNT	a SISO	5220	Ant2	21.183
NVNT	a SISO	5240	Ant1	20.079
NVNT	a SISO	5240	Ant2	20.182
NVNT	n20 SISO	5180	Ant1	28.632
NVNT	n20 SISO	5180	Ant2	27.696
NVNT	n20 MIMO	5180	Ant1	27.782
NVNT	n20 MIMO	5180	Ant2	26.142
NVNT	n20 SISO	5220	Ant1	21.759
NVNT	n20 SISO	5220	Ant2	21.827
NVNT	n20 MIMO	5220	Ant1	21.854
NVNT	n20 MIMO	5220	Ant2	21.594
NVNT	n20 SISO	5240	Ant1	20.526
NVNT	n20 SISO	5240	Ant2	20.507
NVNT	n20 MIMO	5240	Ant1	20.65
NVNT	n20 MIMO	5240	Ant2	20.306
NVNT	n40 SISO	5190	Ant1	50.824
NVNT	n40 SISO	5190	Ant2	48.077
NVNT	n40 MIMO	5190	Ant1	50.901
NVNT	n40 MIMO	5190	Ant2	48.403
NVNT	n40 SISO	5230	Ant1	40.852
NVNT	n40 SISO	5230	Ant2	40.779
NVNT	n40 MIMO	5230	Ant1	40.659
NVNT	n40 MIMO	5230	Ant2	39.974
NVNT	ac20 SISO	5180	Ant1	25.912
NVNT	ac20 SISO	5180	Ant2	28.216
NVNT	ac20 MIMO	5180	Ant1	28.188
NVNT	ac20 MIMO	5180	Ant2	27.57
NVNT	ac20 SISO	5220	Ant1	22.115
NVNT	ac20 SISO	5220	Ant2	21.04
NVNT	ac20 MIMO	5220	Ant1	22.161
NVNT	ac20 MIMO	5220	Ant2	21.432
NVNT	ac20 SISO	5240	Ant1	20.497
NVNT	ac20 SISO	5240	Ant2	20.558



NVNT	ac20 MIMO	5240	Ant1	20.569
NVNT	ac20 MIMO	5240	Ant2	20.347
NVNT	ac40 SISO	5190	Ant1	53.114
NVNT	ac40 SISO	5190	Ant2	52.185
NVNT	ac40 MIMO	5190	Ant1	52.339
NVNT	ac40 MIMO	5190	Ant2	48.324
NVNT	ac40 SISO	5230	Ant1	40.733
NVNT	ac40 SISO	5230	Ant2	40.726
NVNT	ac40 MIMO	5230	Ant1	41.019
NVNT	ac40 MIMO	5230	Ant2	40.131
NVNT	ac80 SISO	5210	Ant1	101.841
NVNT	ac80 SISO	5210	Ant2	100.954
NVNT	ac80 MIMO	5210	Ant1	103.259
NVNT	ac80 MIMO	5210	Ant2	99.748
NVNT	ax20 SISO	5180	Ant1	27.812
NVNT	ax20 SISO	5180	Ant2	24.719
NVNT	ax20 MIMO	5180	Ant1	25.078
NVNT	ax20 MIMO	5180	Ant2	24.615
NVNT	ax20 SISO	5220	Ant1	21.768
NVNT	ax20 SISO	5220	Ant2	21.98
NVNT	ax20 MIMO	5220	Ant1	22.271
NVNT	ax20 MIMO	5220	Ant2	21.852
NVNT	ax20 SISO	5240	Ant1	19.933
NVNT	ax20 SISO	5240	Ant2	19.94
NVNT	ax20 MIMO	5240	Ant1	19.958
NVNT	ax20 MIMO	5240	Ant2	19.888
NVNT	ax40 SISO	5190	Ant1	44.517
NVNT	ax40 SISO	5190	Ant2	44.771
NVNT	ax40 MIMO	5190	Ant1	42.696
NVNT	ax40 MIMO	5190	Ant2	50.824
NVNT	ax40 SISO	5230	Ant1	39.728
NVNT	ax40 SISO	5230	Ant2	39.568
NVNT	ax40 MIMO	5230	Ant1	39.518
NVNT	ax40 MIMO	5230	Ant2	39.568
NVNT	ax80 SISO	5210	Ant1	93.772
NVNT	ax80 SISO	5210	Ant2	89.687
NVNT	ax80 MIMO	5210	Ant1	93.375
NVNT	ax80 MIMO	5210	Ant2	99.192



Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)
NVNT	a SISO	5745	Ant1	16.337
NVNT	a SISO	5745	Ant2	16.325
NVNT	a SISO	5785	Ant1	16.324
NVNT	a SISO	5785	Ant2	16.037
NVNT	a SISO	5825	Ant1	16.009
NVNT	a SISO	5825	Ant2	16.296
NVNT	n20 SISO	5745	Ant1	15.918
NVNT	n20 SISO	5745	Ant2	17.567
NVNT	n20 MIMO	5745	Ant1	16.674
NVNT	n20 MIMO	5745	Ant2	17.57
NVNT	n20 SISO	5785	Ant1	17.562
NVNT	n20 SISO	5785	Ant2	17.59
NVNT	n20 MIMO	5785	Ant1	16.551
NVNT	n20 MIMO	5785	Ant2	17.515
NVNT	n20 SISO	5825	Ant1	16.568
NVNT	n20 SISO	5825	Ant2	17.571
NVNT	n20 MIMO	5825	Ant1	15.676
NVNT	n20 MIMO	5825	Ant2	17.588
NVNT	n40 SISO	5755	Ant1	35.033
NVNT	n40 SISO	5755	Ant2	35.087
NVNT	n40 MIMO	5755	Ant1	35.075
NVNT	n40 MIMO	5755	Ant2	35.107
NVNT	n40 SISO	5795	Ant1	33.825
NVNT	n40 SISO	5795	Ant2	35.042
NVNT	n40 MIMO	5795	Ant1	35.029
NVNT	n40 MIMO	5795	Ant2	35.056
NVNT	ac20 SISO	5745	Ant1	17.162
NVNT	ac20 SISO	5745	Ant2	17.56
NVNT	ac20 MIMO	5745	Ant1	17.529
NVNT	ac20 MIMO	5745	Ant2	17.572
NVNT	ac20 SISO	5785	Ant1	16.901
NVNT	ac20 SISO	5785	Ant2	17.576
NVNT	ac20 MIMO	5785	Ant1	17.506
NVNT	ac20 MIMO	5785	Ant2	17.309
NVNT	ac20 SISO	5825	Ant1	16.901
NVNT	ac20 SISO	5825	Ant2	17.556
NVNT	ac20 MIMO	5825	Ant1	17.285

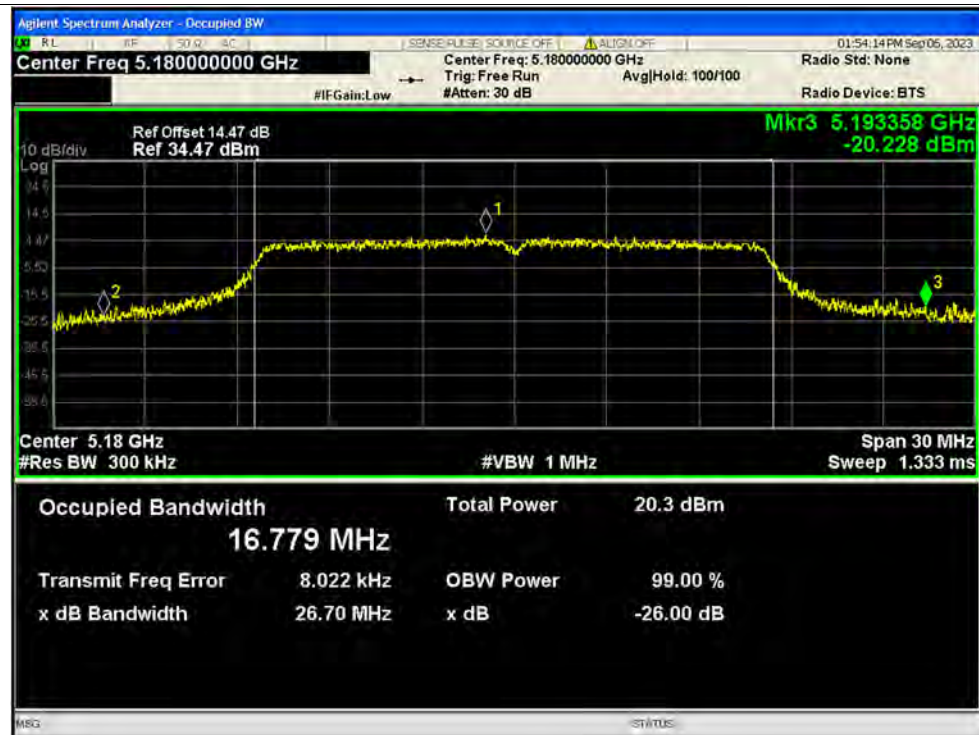


NVNT	ac20 MIMO	5825	Ant2	17.536
NVNT	ac40 SISO	5755	Ant1	35.025
NVNT	ac40 SISO	5755	Ant2	35.121
NVNT	ac40 MIMO	5755	Ant1	35.092
NVNT	ac40 MIMO	5755	Ant2	35.111
NVNT	ac40 SISO	5795	Ant1	35.051
NVNT	ac40 SISO	5795	Ant2	35.124
NVNT	ac40 MIMO	5795	Ant1	35.099
NVNT	ac40 MIMO	5795	Ant2	35.067
NVNT	ac80 SISO	5775	Ant1	75.125
NVNT	ac80 SISO	5775	Ant2	73.881
NVNT	ac80 MIMO	5775	Ant1	75.107
NVNT	ac80 MIMO	5775	Ant2	75.113
NVNT	ax20 SISO	5745	Ant1	17.862
NVNT	ax20 SISO	5745	Ant2	18.289
NVNT	ax20 MIMO	5745	Ant1	17.609
NVNT	ax20 MIMO	5745	Ant2	17.787
NVNT	ax20 SISO	5785	Ant1	18.8
NVNT	ax20 SISO	5785	Ant2	18.472
NVNT	ax20 MIMO	5785	Ant1	18.22
NVNT	ax20 MIMO	5785	Ant2	17.779
NVNT	ax20 SISO	5825	Ant1	18.446
NVNT	ax20 SISO	5825	Ant2	18.655
NVNT	ax20 MIMO	5825	Ant1	18.293
NVNT	ax20 MIMO	5825	Ant2	17.749
NVNT	ax40 SISO	5755	Ant1	35.459
NVNT	ax40 SISO	5755	Ant2	35.12
NVNT	ax40 MIMO	5755	Ant1	35.063
NVNT	ax40 MIMO	5755	Ant2	35.041
NVNT	ax40 SISO	5795	Ant1	36.415
NVNT	ax40 SISO	5795	Ant2	35.127
NVNT	ax40 MIMO	5795	Ant1	36.315
NVNT	ax40 MIMO	5795	Ant2	35.103
NVNT	ax80 SISO	5775	Ant1	76.268
NVNT	ax80 SISO	5775	Ant2	75.272
NVNT	ax80 MIMO	5775	Ant1	75.116
NVNT	ax80 MIMO	5775	Ant2	75.101

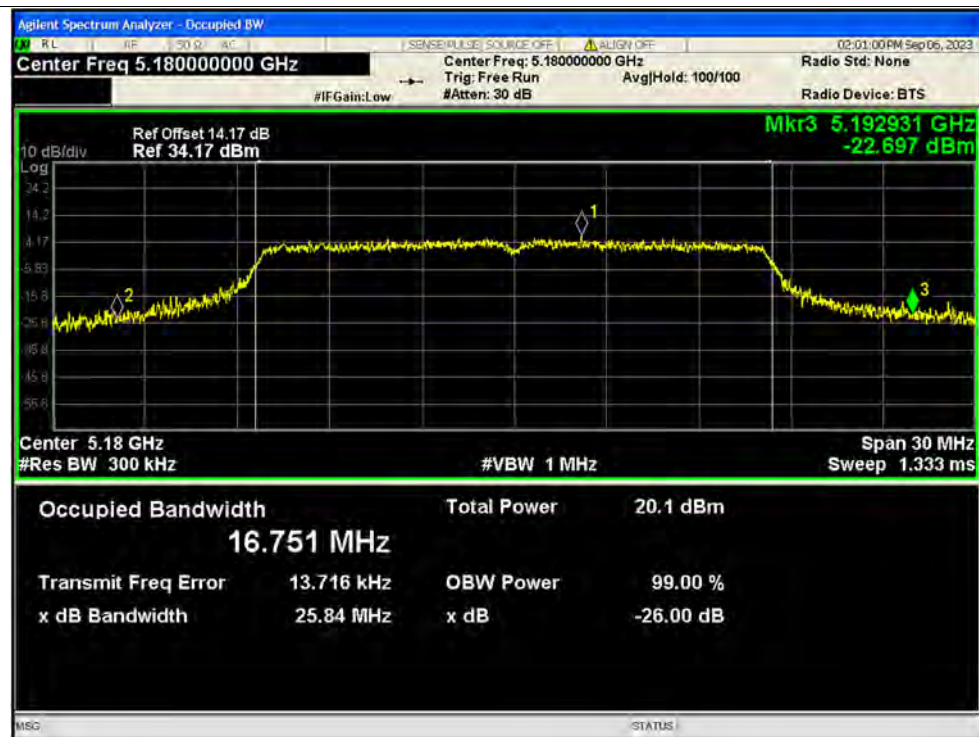


Test Graphs

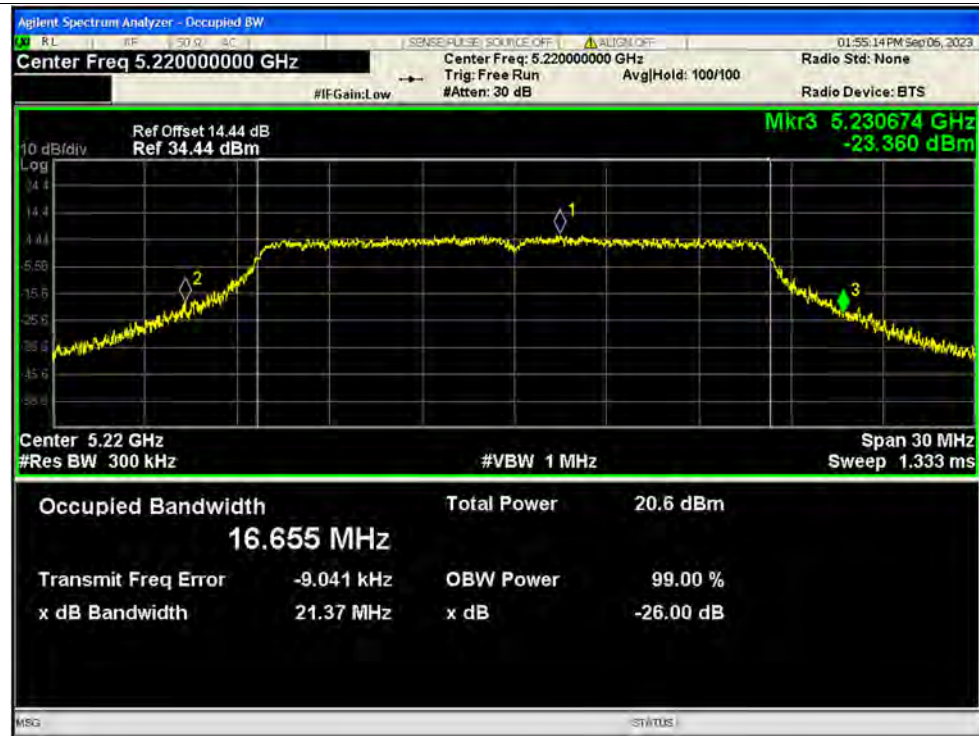
-26dB Bandwidth NVNT a 5180MHz Ant1 SISO



-26dB Bandwidth NVNT a 5180MHz Ant2 SISO



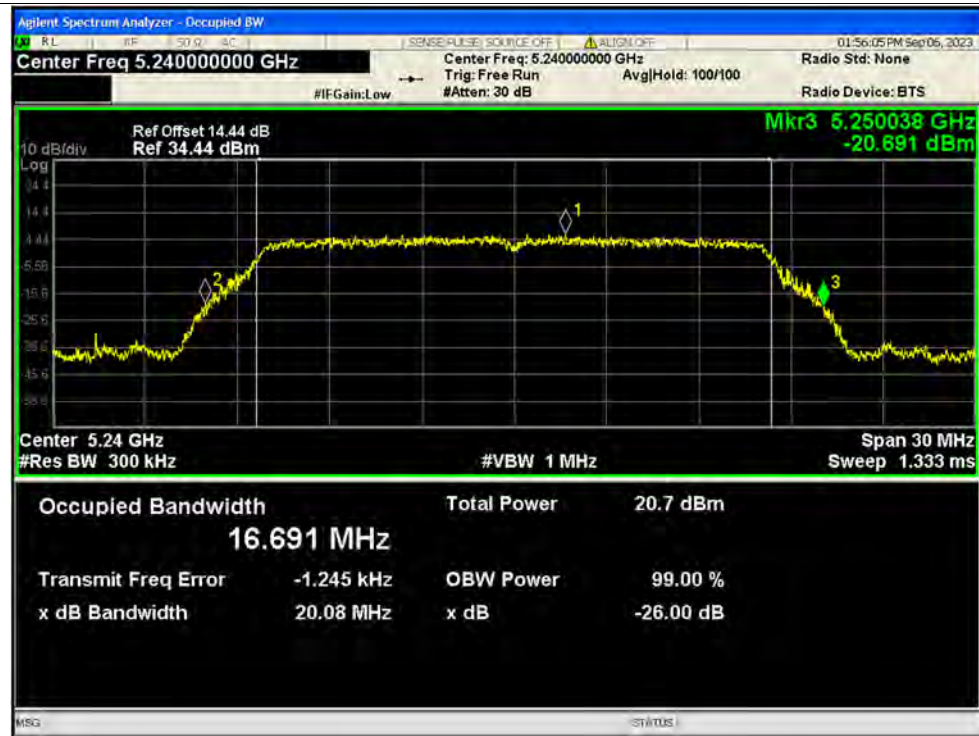
-26dB Bandwidth NVNT a 5220MHz Ant1 SISO



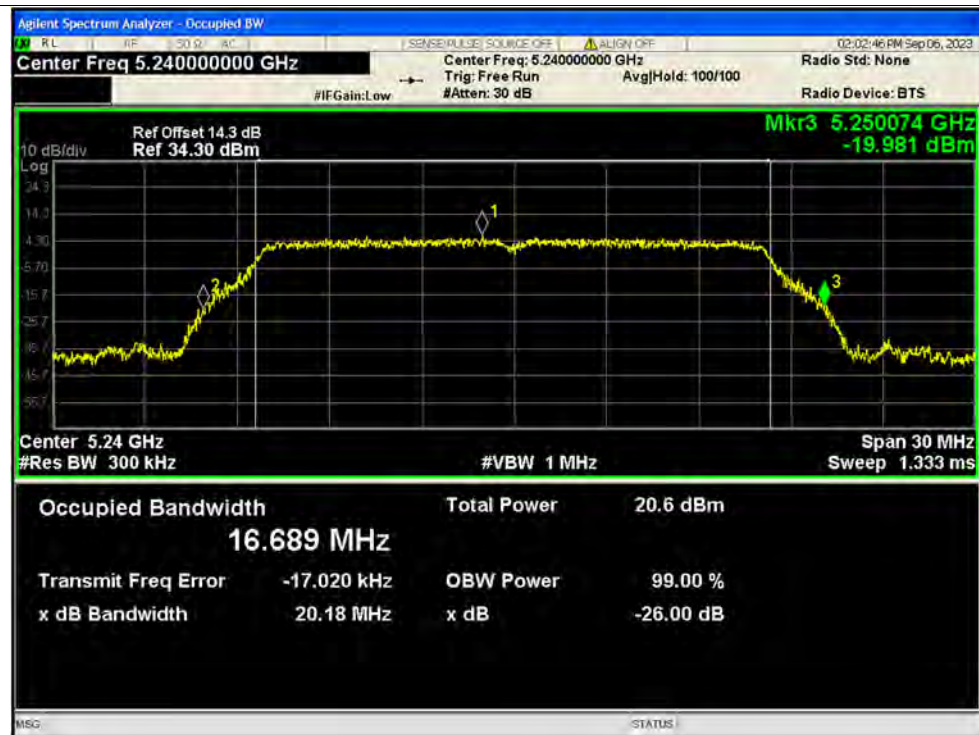
-26dB Bandwidth NVNT a 5220MHz Ant2 SISO



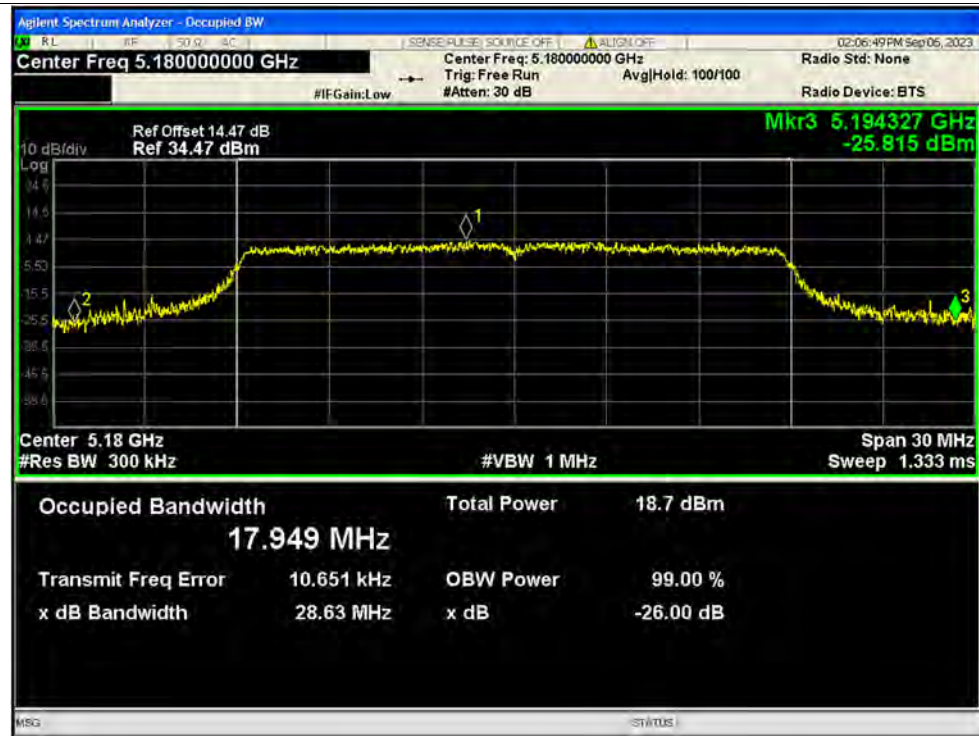
-26dB Bandwidth NVNT a 5240MHz Ant1 SISO



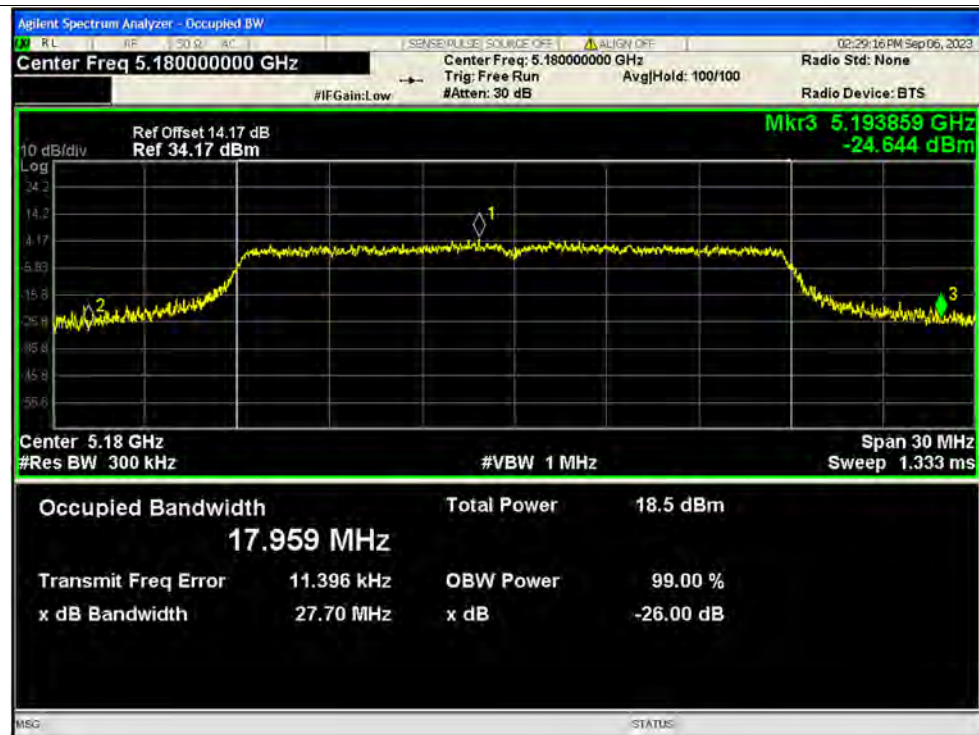
-26dB Bandwidth NVNT a 5240MHz Ant2 SISO



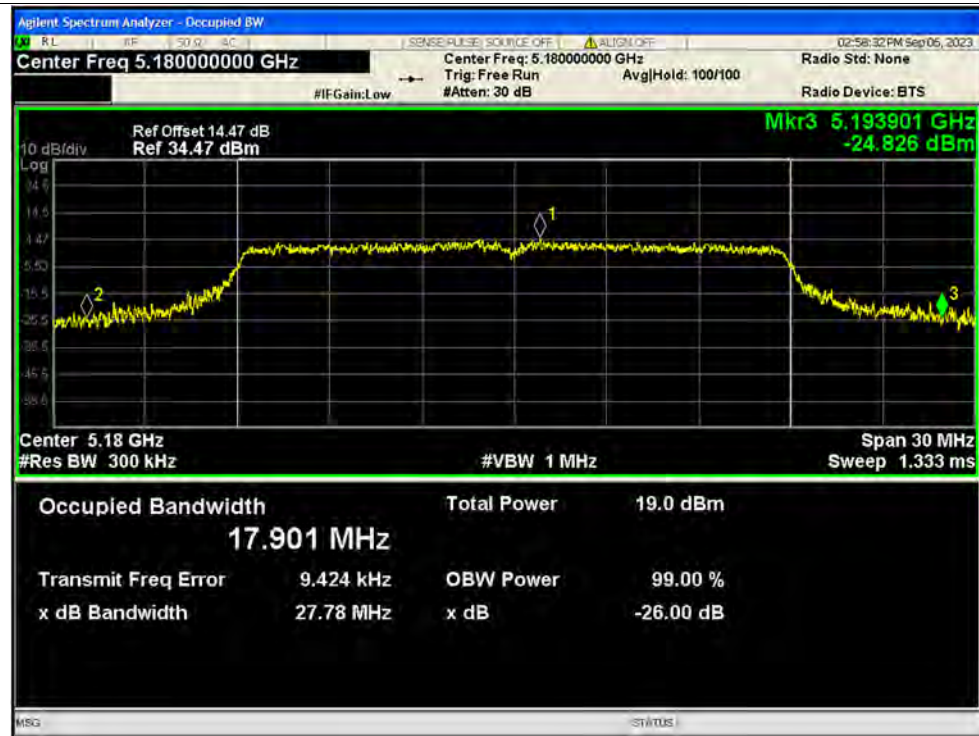
-26dB Bandwidth NVNT n20 5180MHz Ant1 SISO



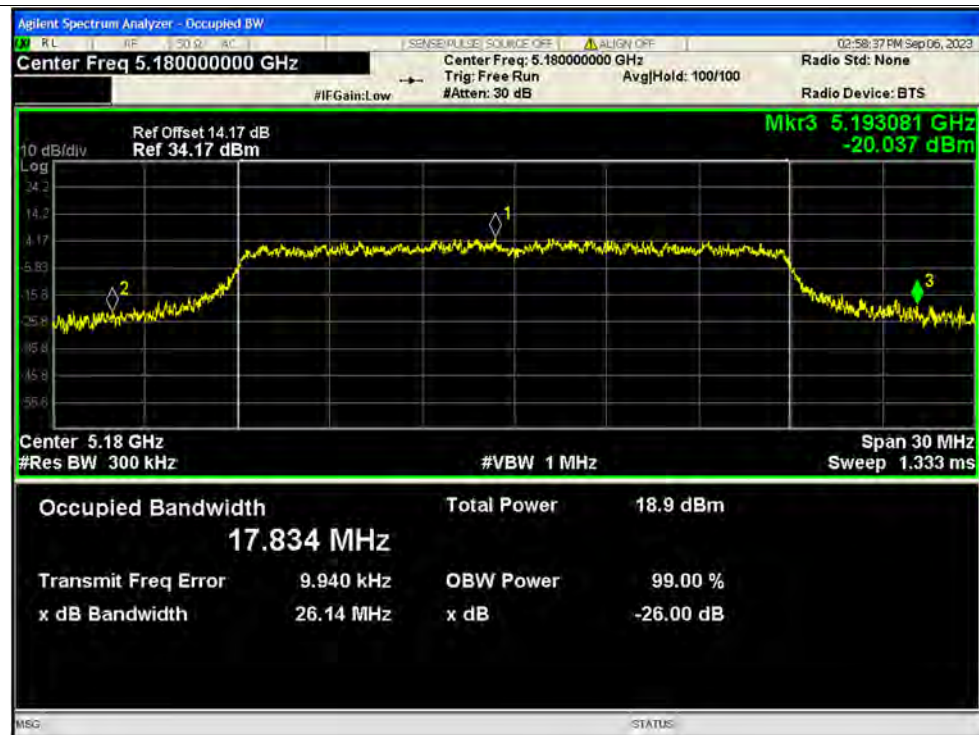
-26dB Bandwidth NVNT n20 5180MHz Ant2 SISO



-26dB Bandwidth NVNT n20 5180MHz Ant1 MIMO

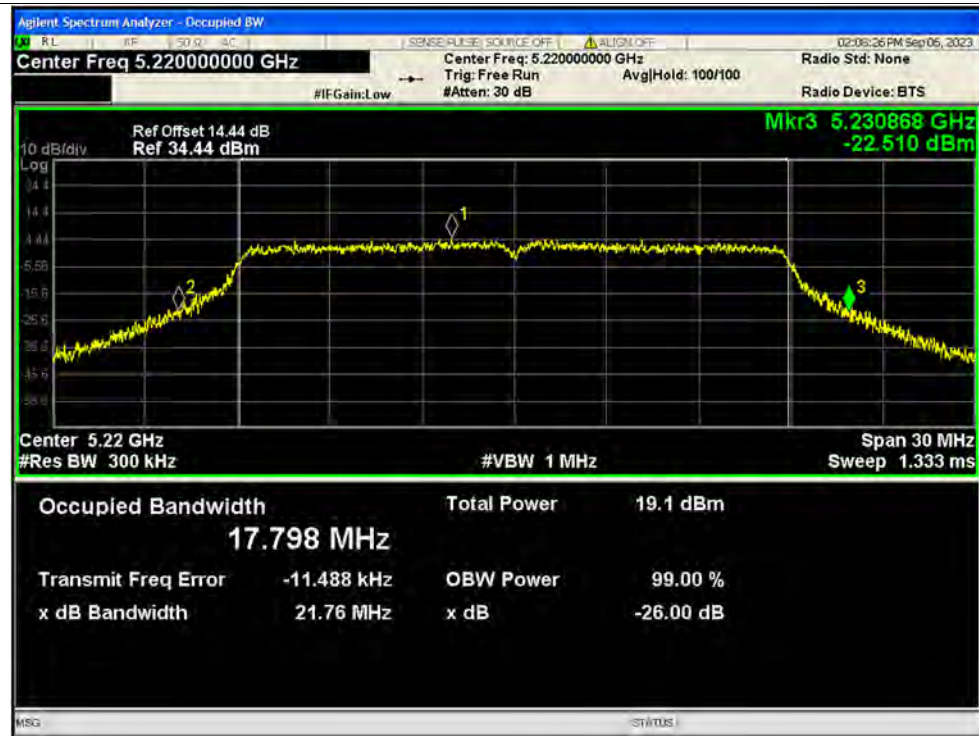


-26dB Bandwidth NVNT n20 5180MHz Ant2 MIMO

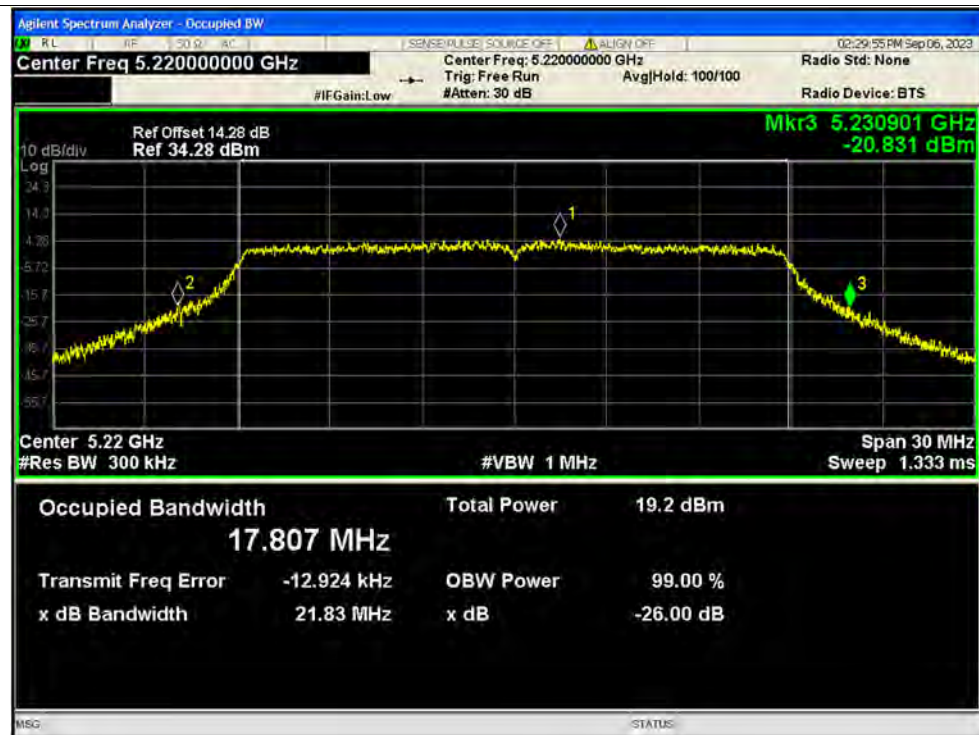




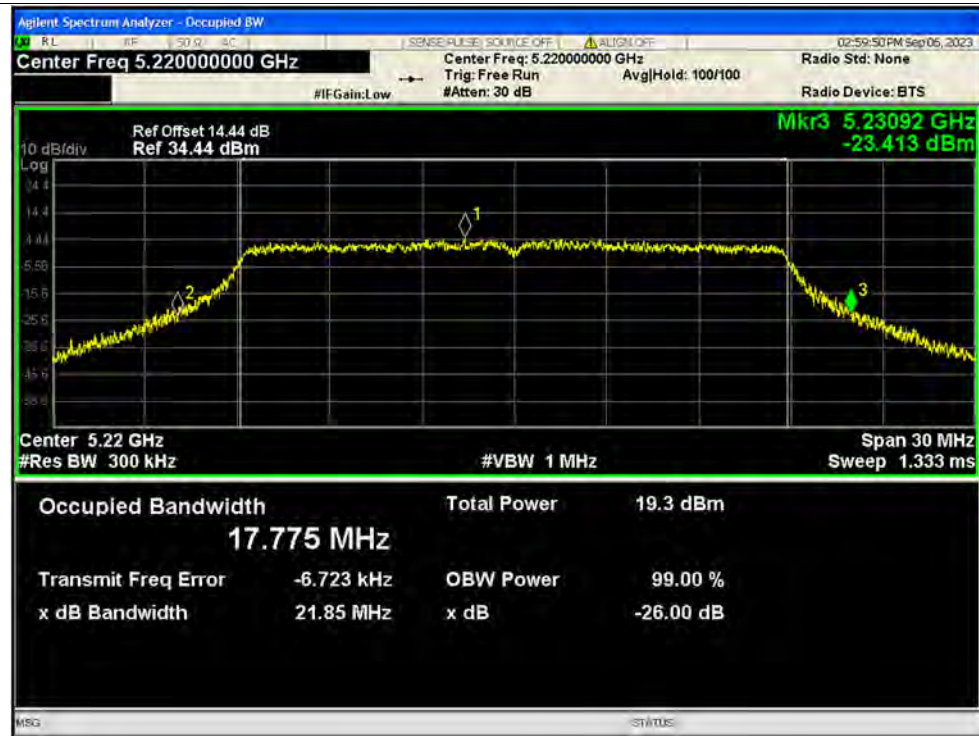
-26dB Bandwidth NVNT n20 5220MHz Ant1 SISO



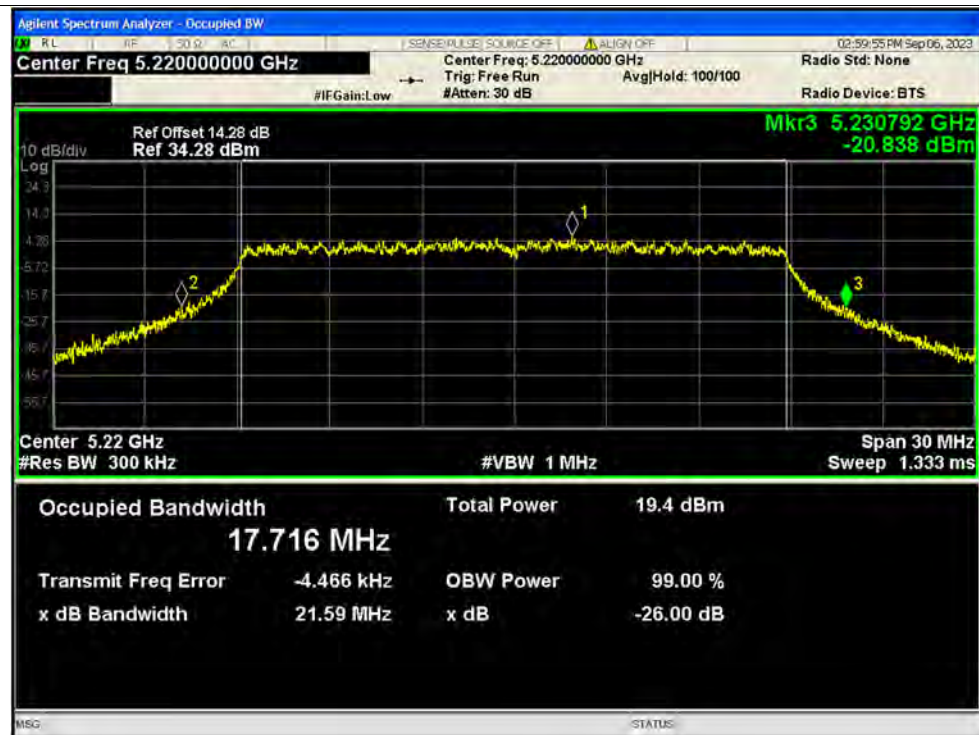
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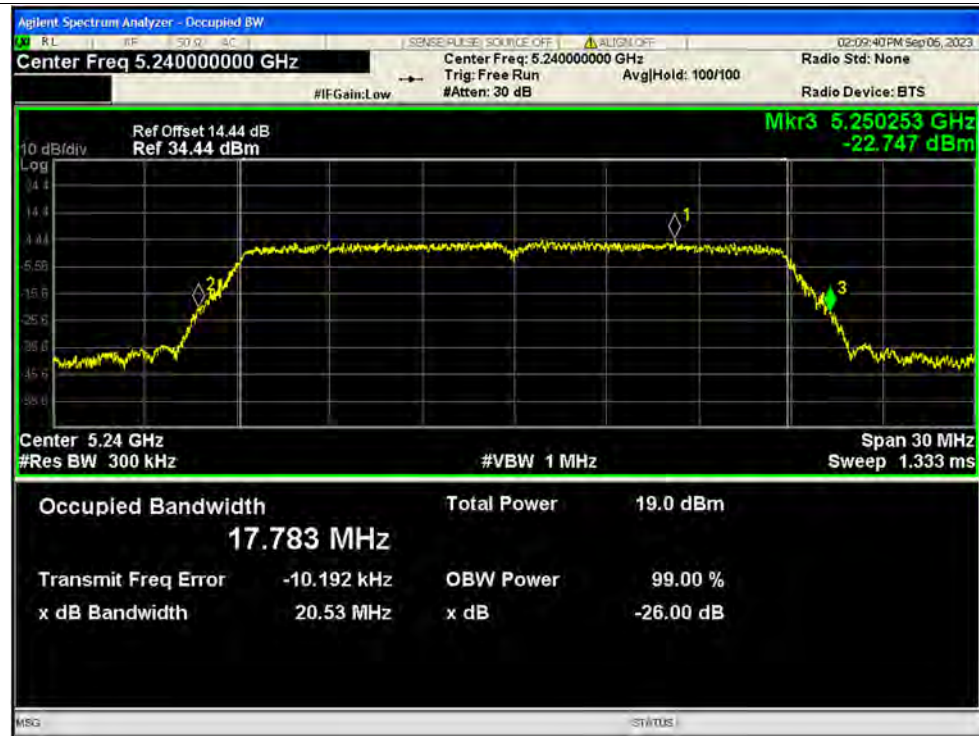
-26dB Bandwidth NVNT n20 5220MHz Ant1 MIMO



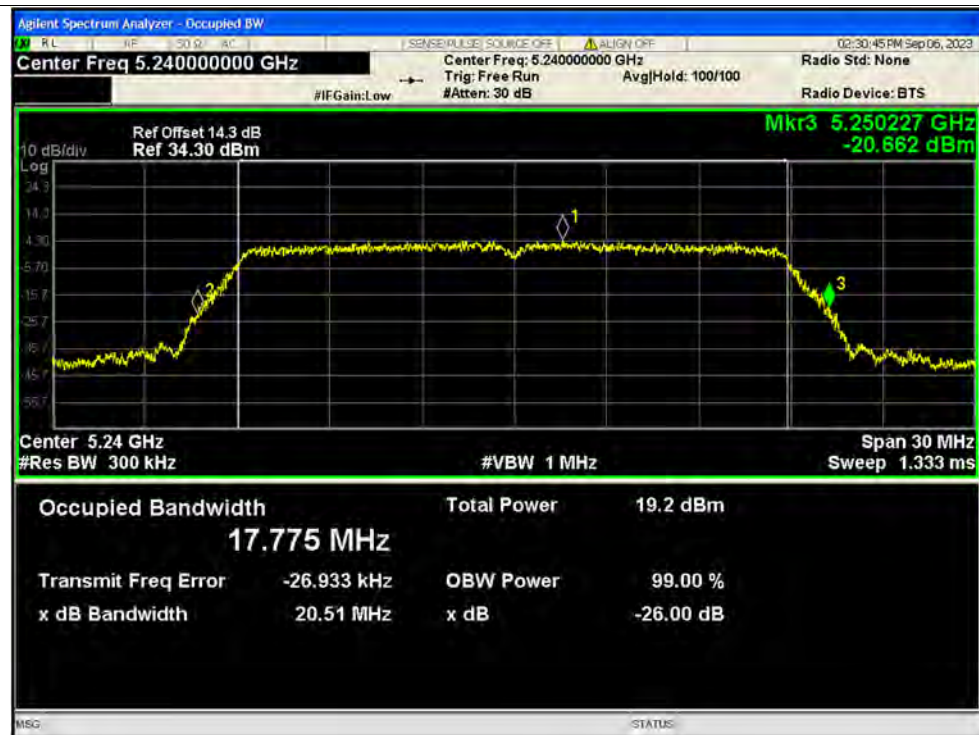
-26dB Bandwidth NVNT n20 5220MHz Ant2 MIMO



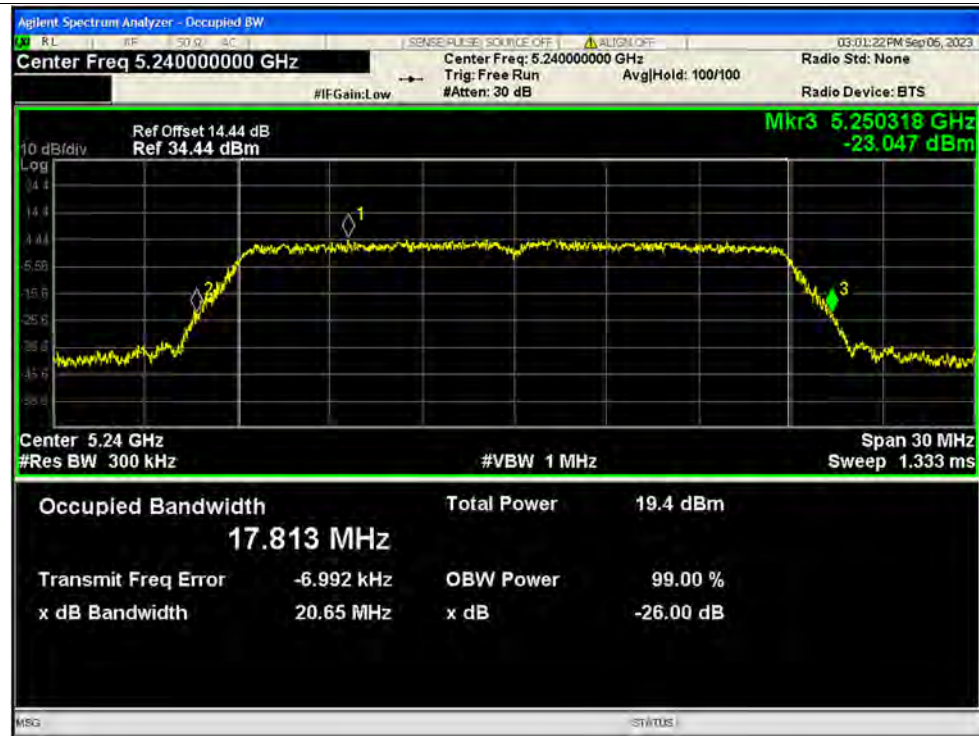
-26dB Bandwidth NVNT n20 5240MHz Ant1 SISO



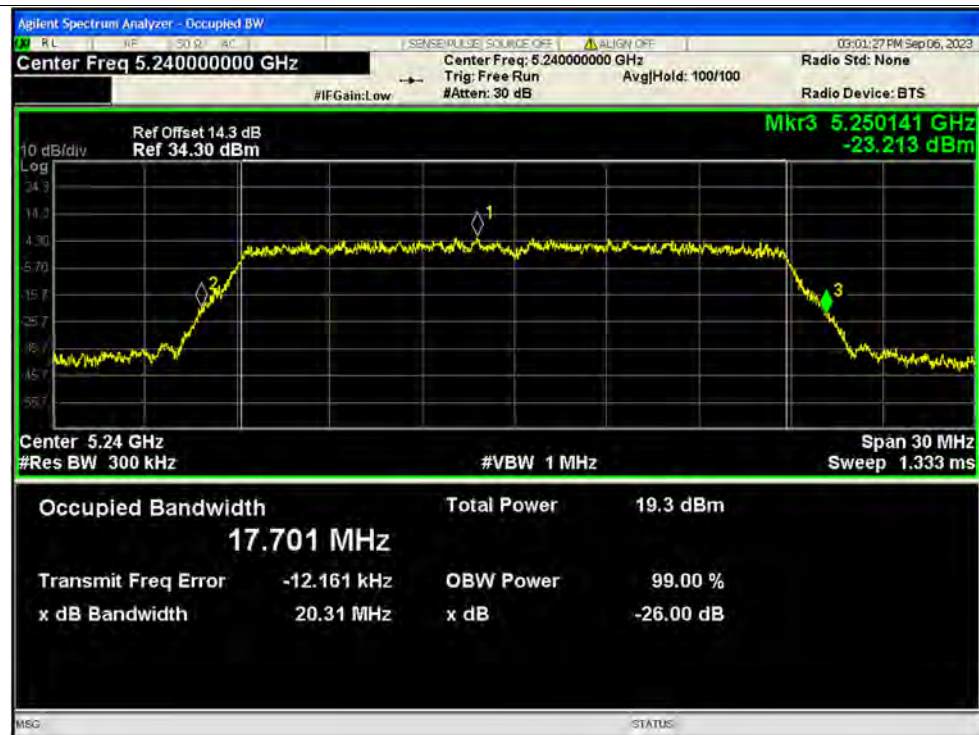
-26dB Bandwidth NVNT n20 5240MHz Ant2 SISO



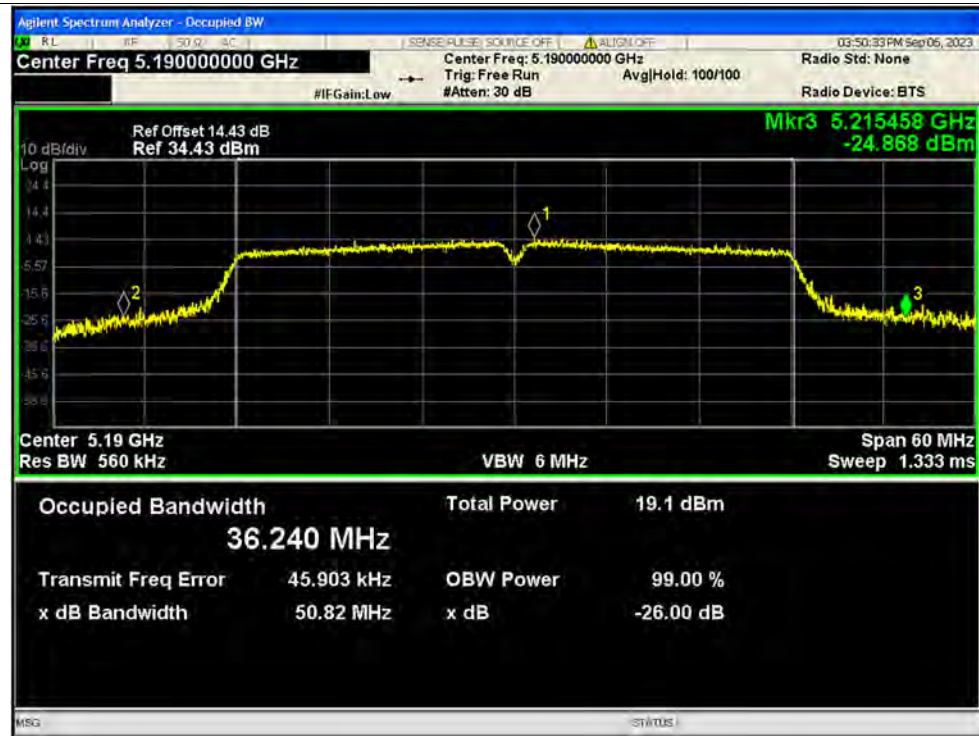
-26dB Bandwidth NVNT n20 5240MHz Ant1 MIMO



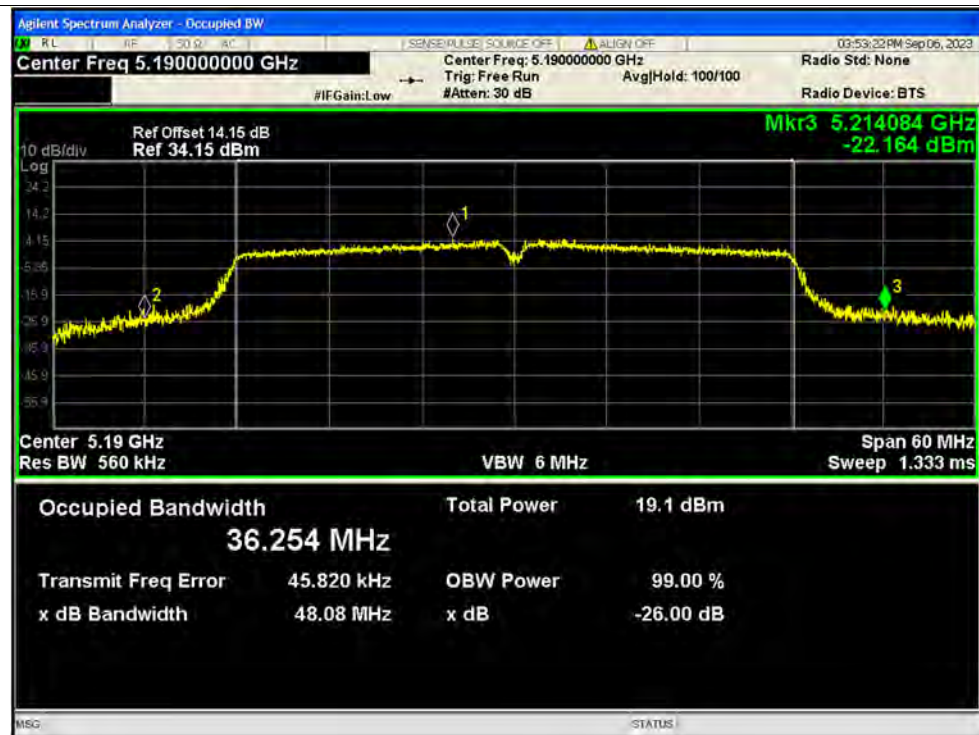
-26dB Bandwidth NVNT n20 5240MHz Ant2 MIMO



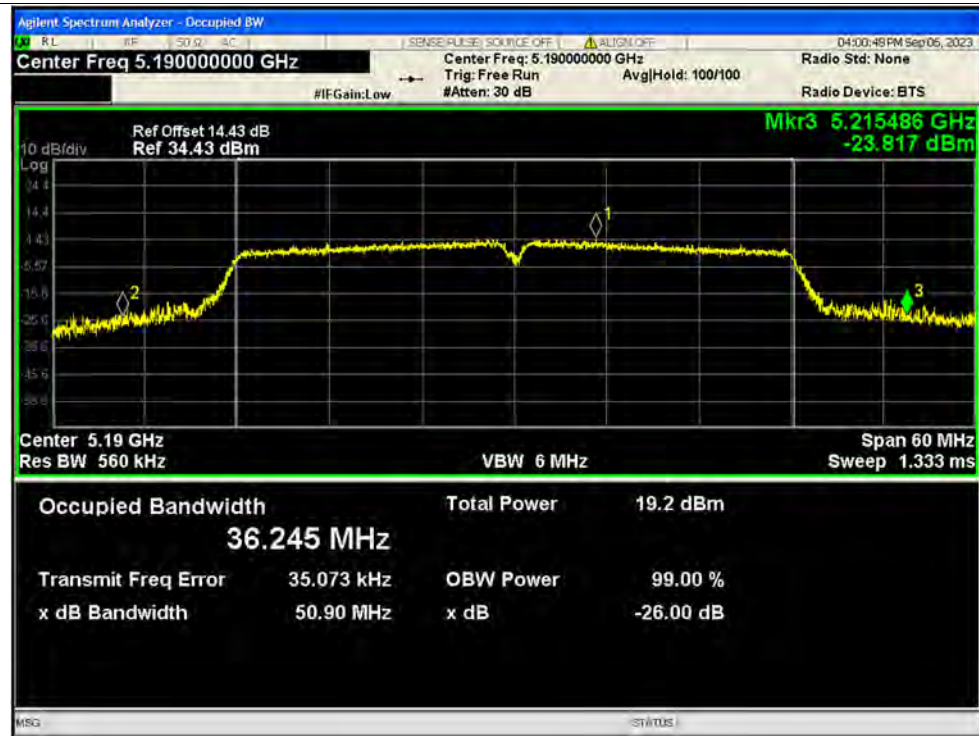
-26dB Bandwidth NVNT n40 5190MHz Ant1 SISO



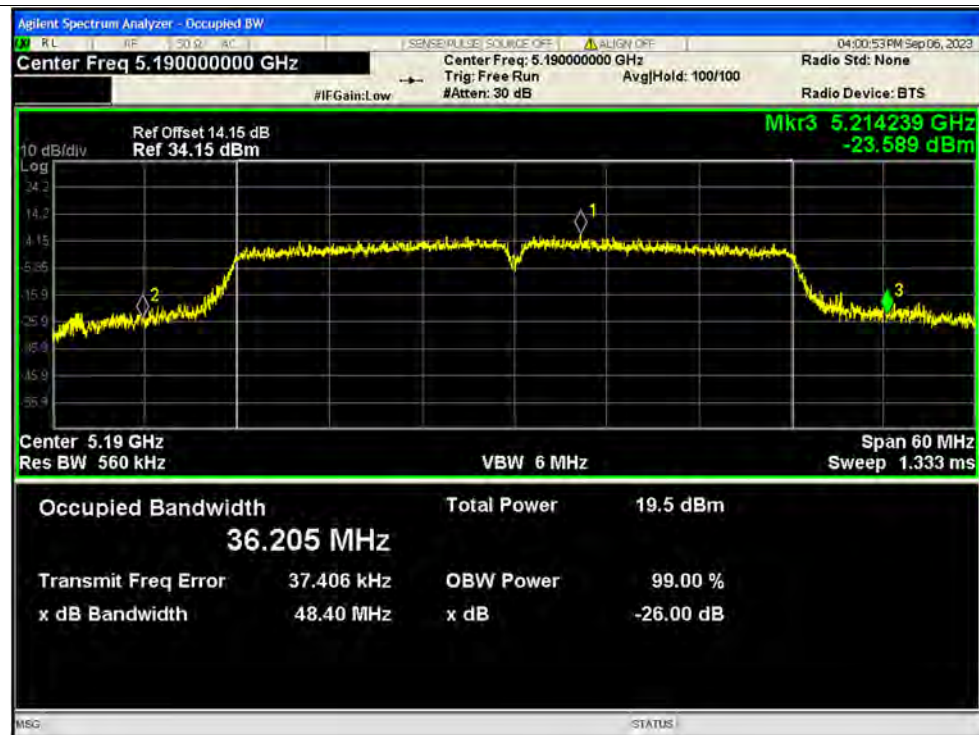
-26dB Bandwidth NVNT n40 5190MHz Ant2 SISO



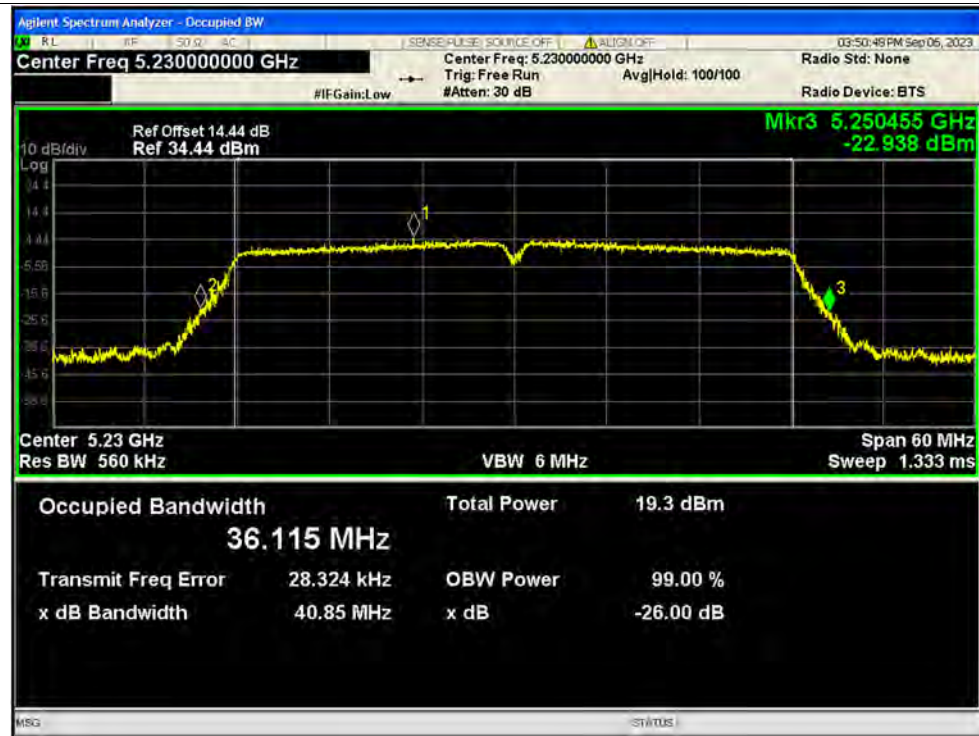
-26dB Bandwidth NVNT n40 5190MHz Ant1 MIMO



-26dB Bandwidth NVNT n40 5190MHz Ant2 MIMO



-26dB Bandwidth NVNT n40 5230MHz Ant1 SISO



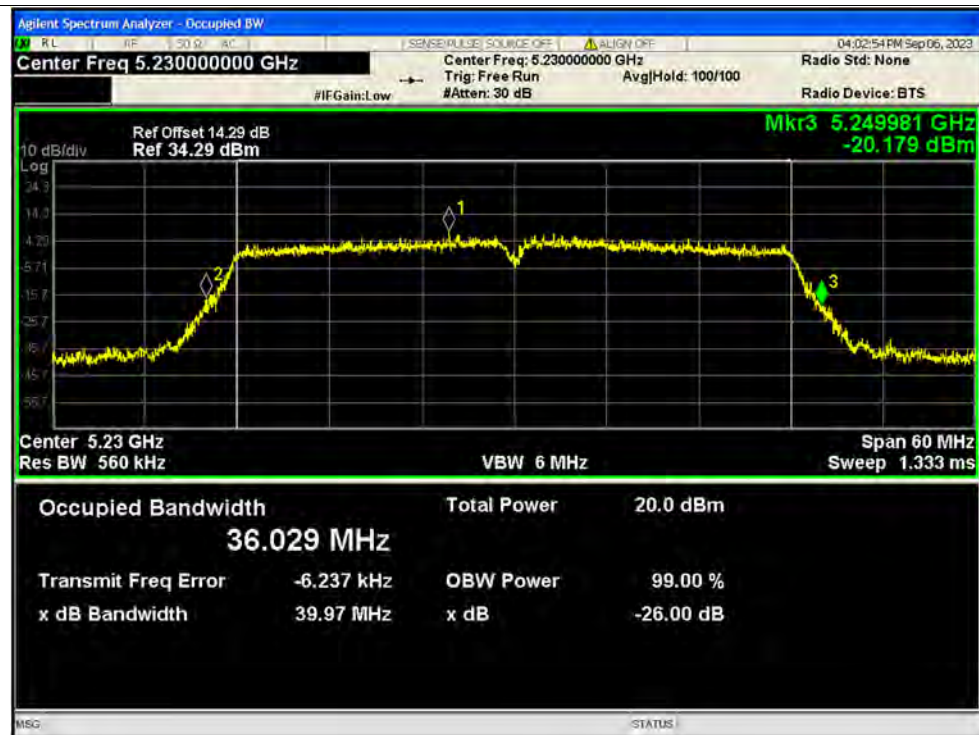
-26dB Bandwidth NVNT n40 5230MHz Ant2 SISO



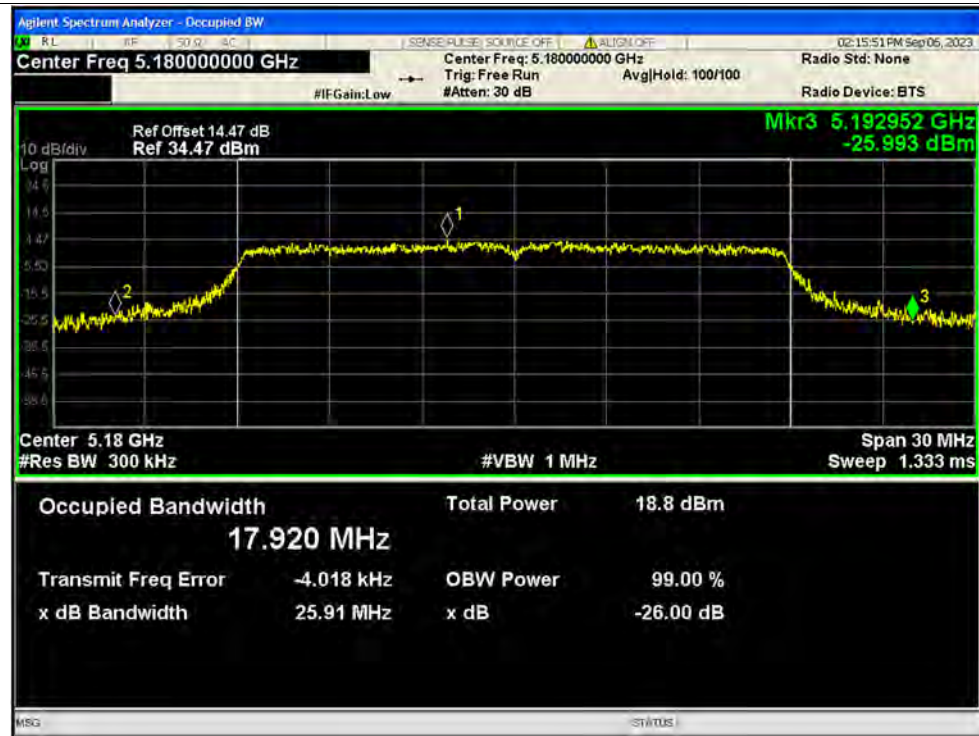
-26dB Bandwidth NVNT n40 5230MHz Ant1 MIMO



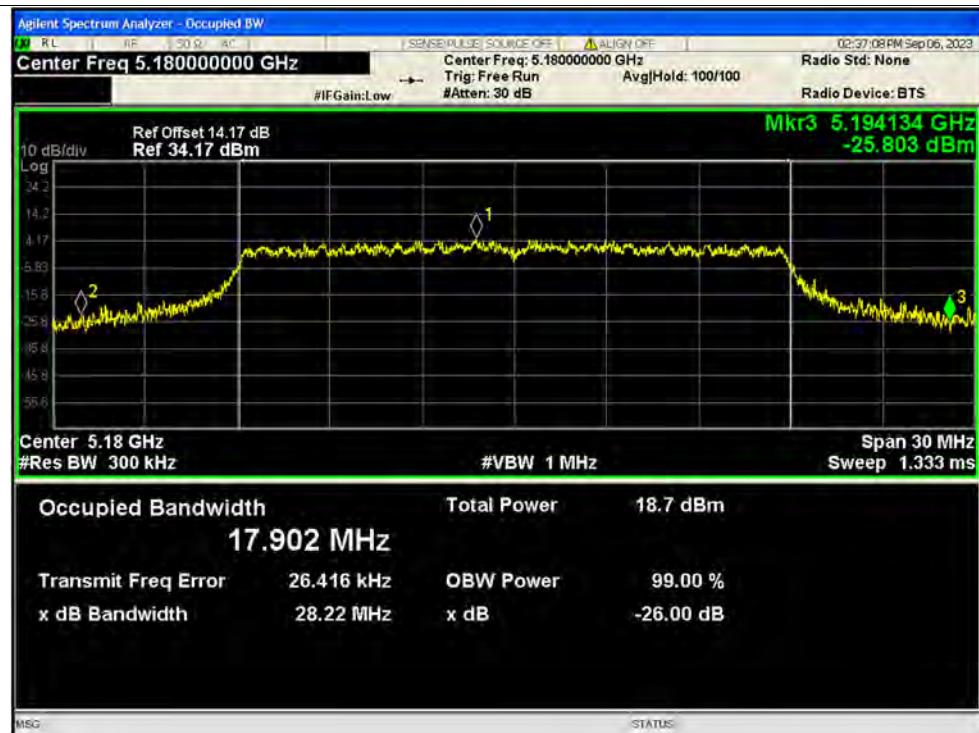
-26dB Bandwidth NVNT n40 5230MHz Ant2 MIMO



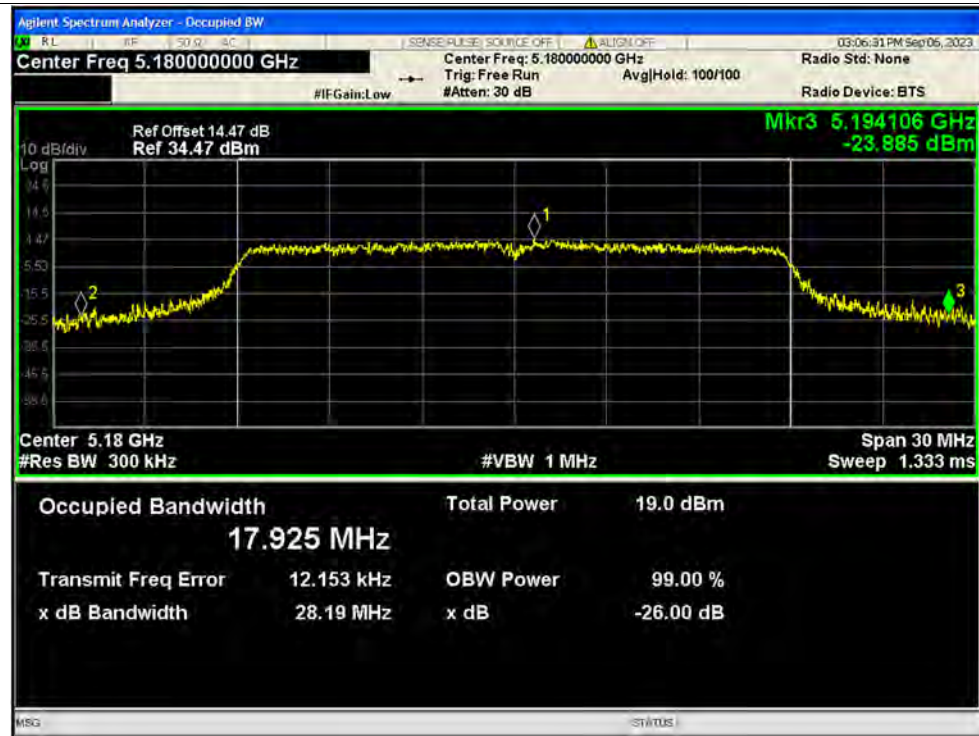
-26dB Bandwidth NVNT ac20 5180MHz Ant1 SISO



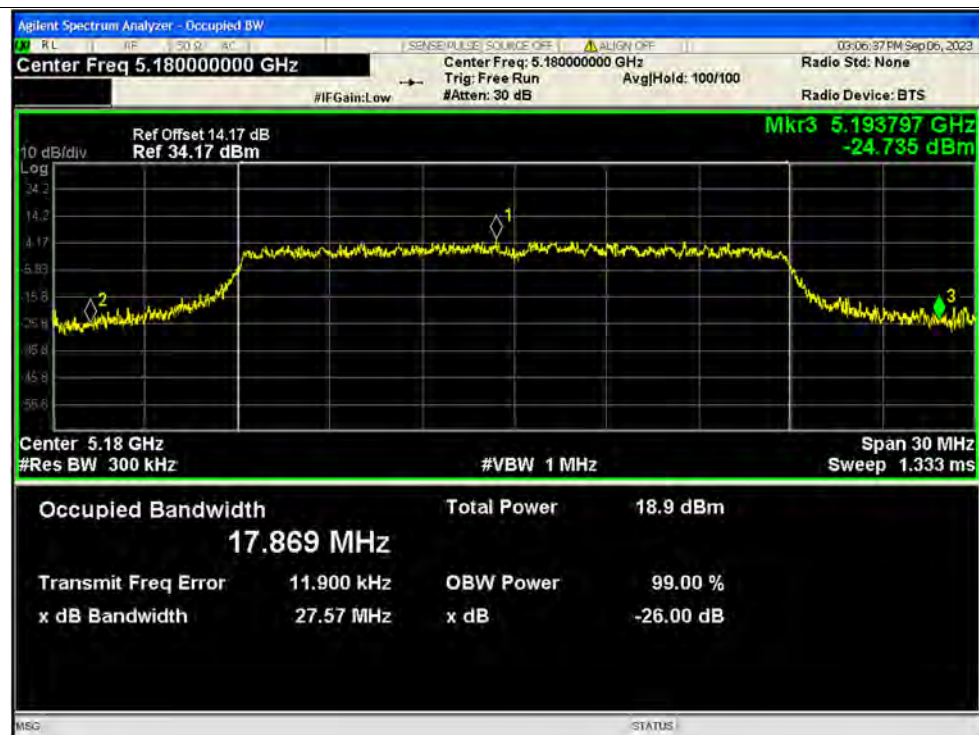
-26dB Bandwidth NVNT ac20 5180MHz Ant2 SISO



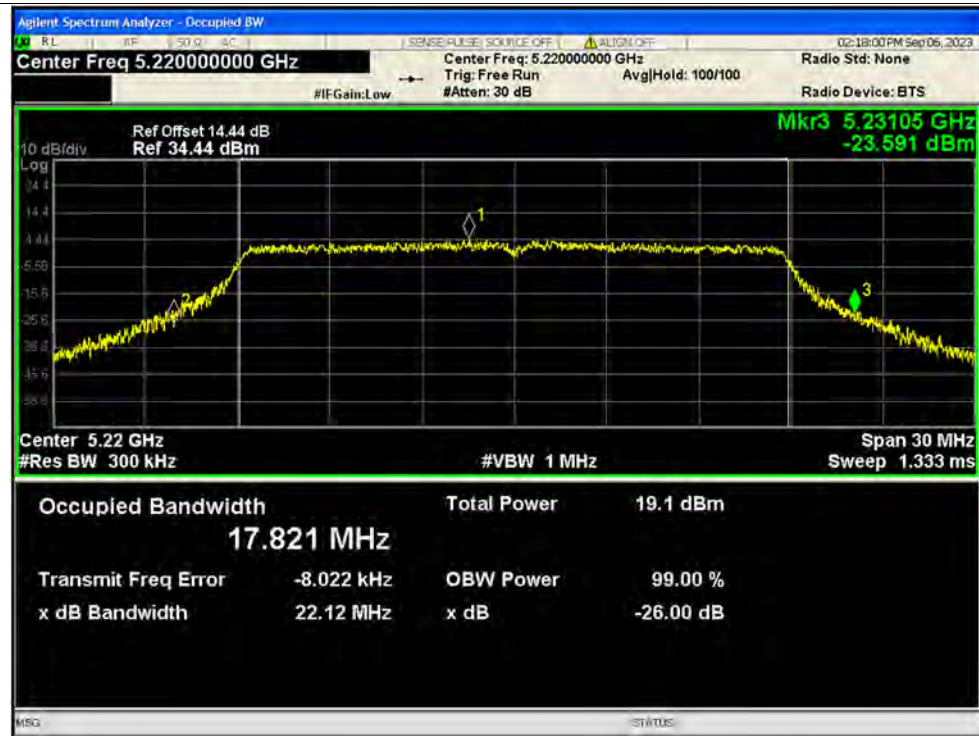
-26dB Bandwidth NVNT ac20 5180MHz Ant1 MIMO



-26dB Bandwidth NVNT ac20 5180MHz Ant2 MIMO



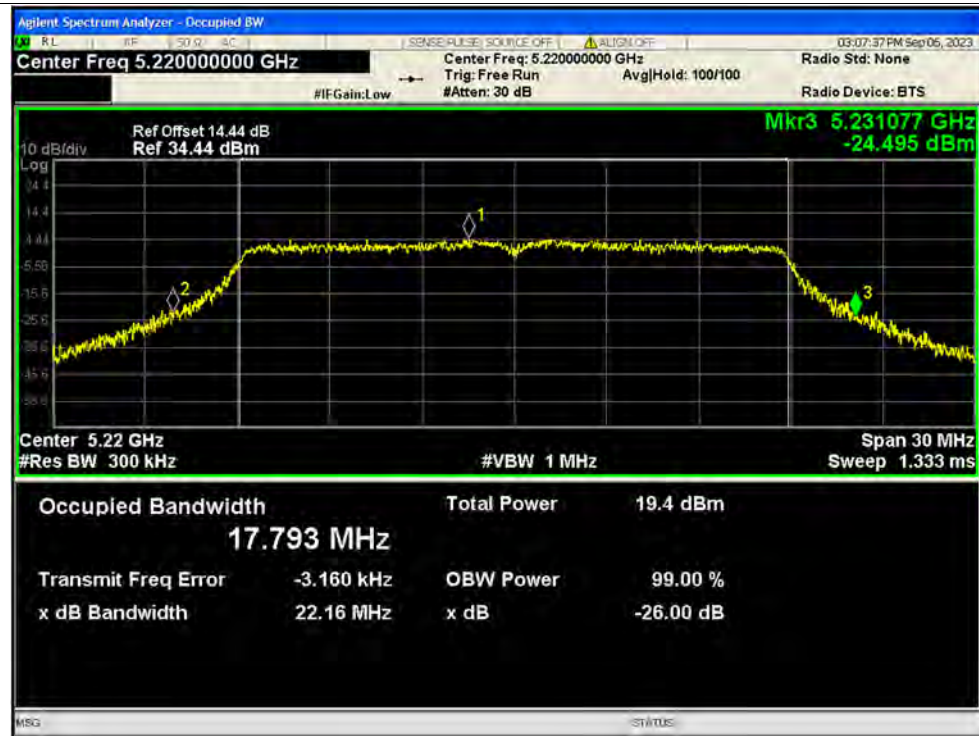
-26dB Bandwidth NVNT ac20 5220MHz Ant1 SISO



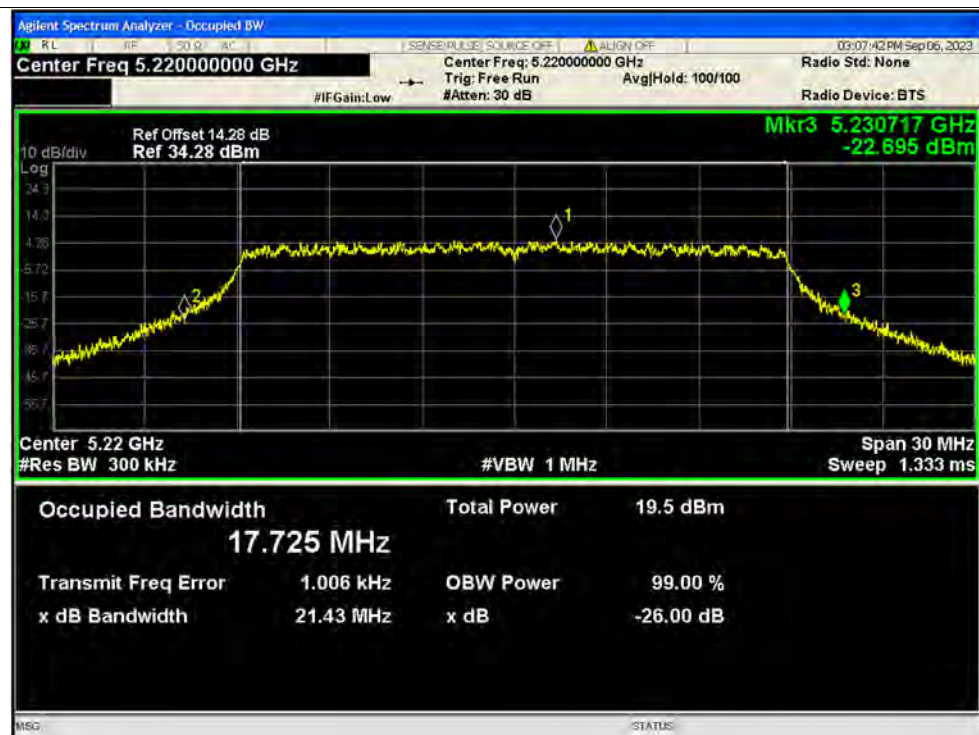
-26dB Bandwidth NVNT ac20 5220MHz Ant2 SISO



-26dB Bandwidth NVNT ac20 5220MHz Ant1 MIMO

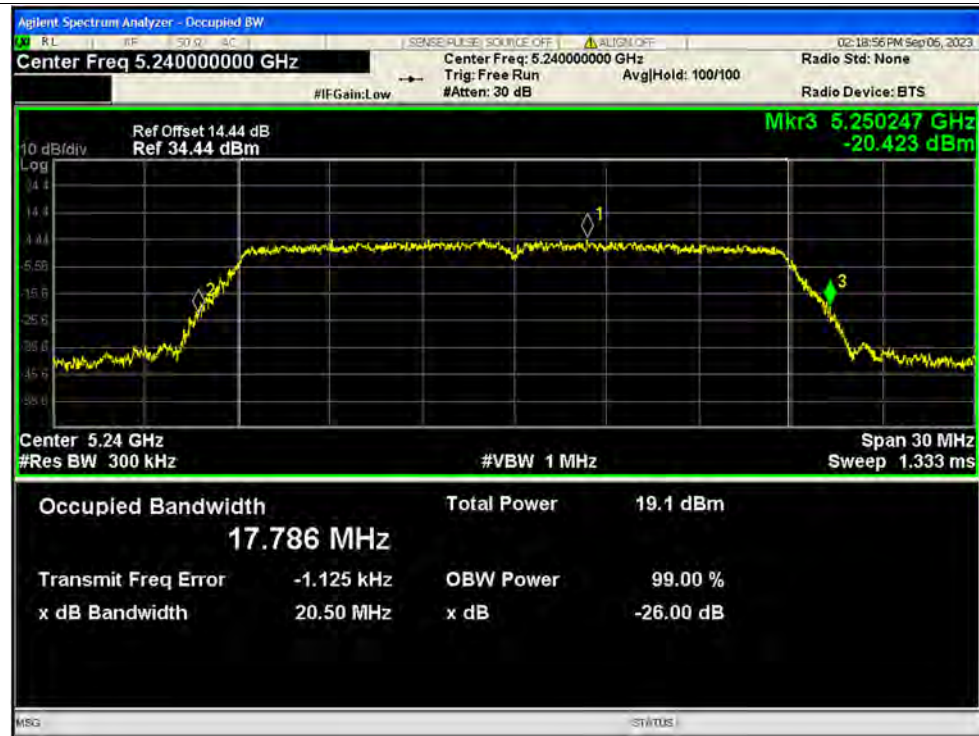


-26dB Bandwidth NVNT ac20 5220MHz Ant2 MIMO

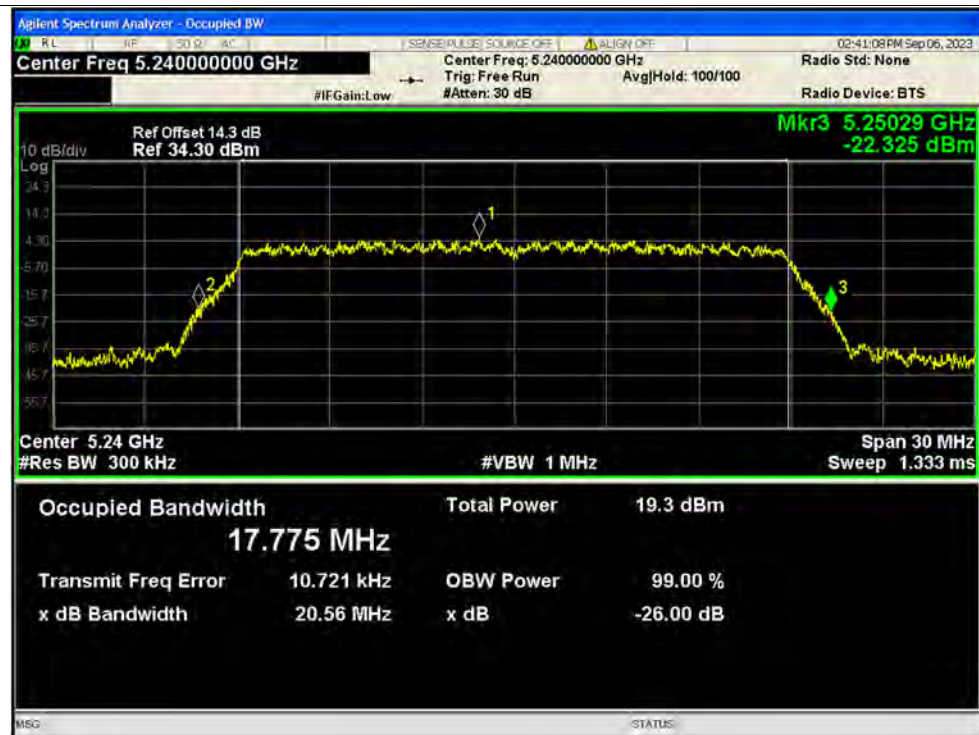




-26dB Bandwidth NVNT ac20 5240MHz Ant1 SISO

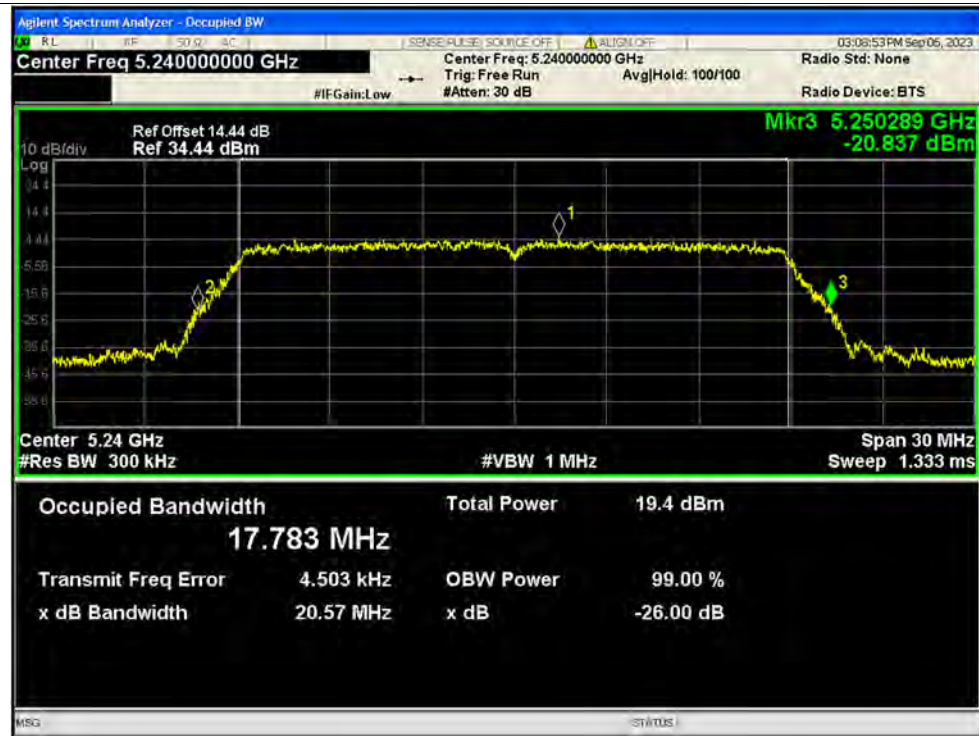


-26dB Bandwidth NVNT ac20 5240MHz Ant2 SISO

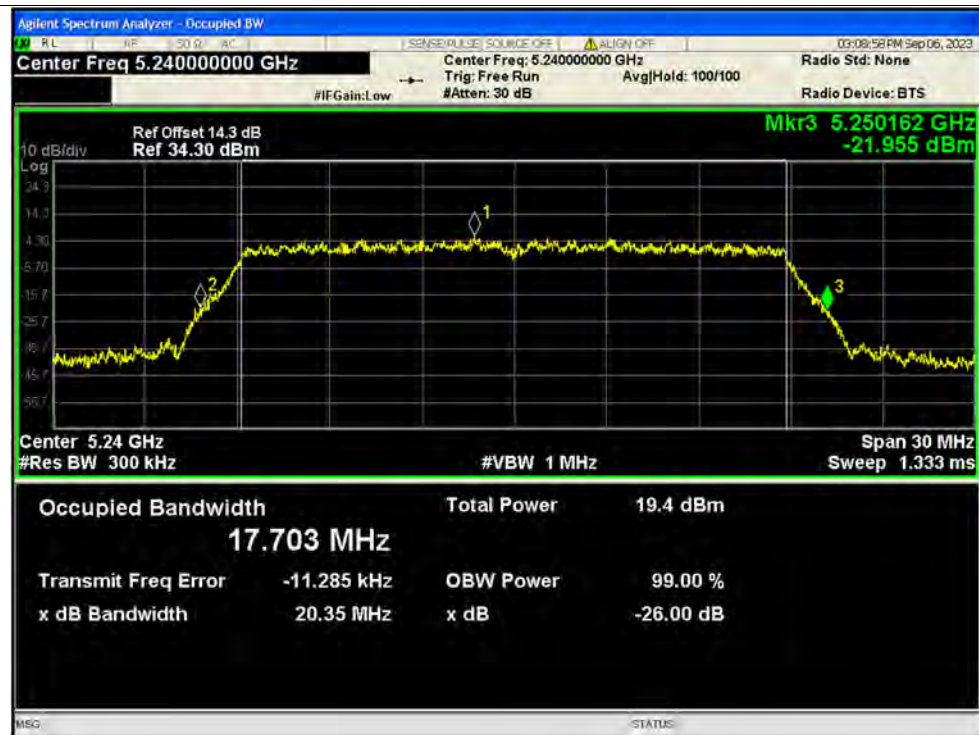




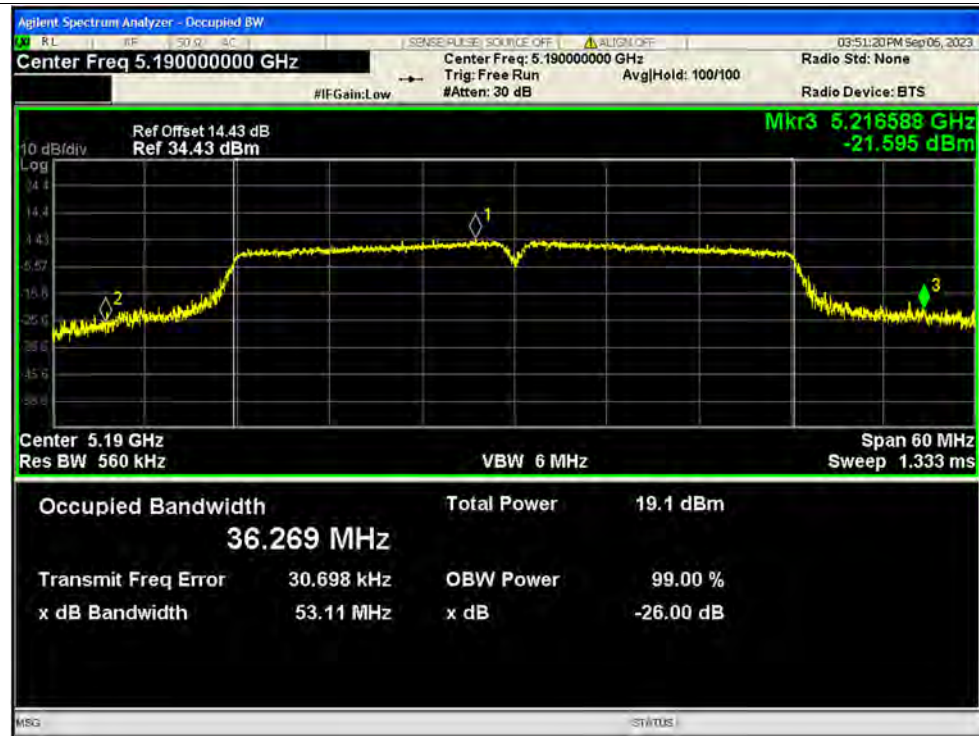
-26dB Bandwidth NVNT ac20 5240MHz Ant1 MIMO



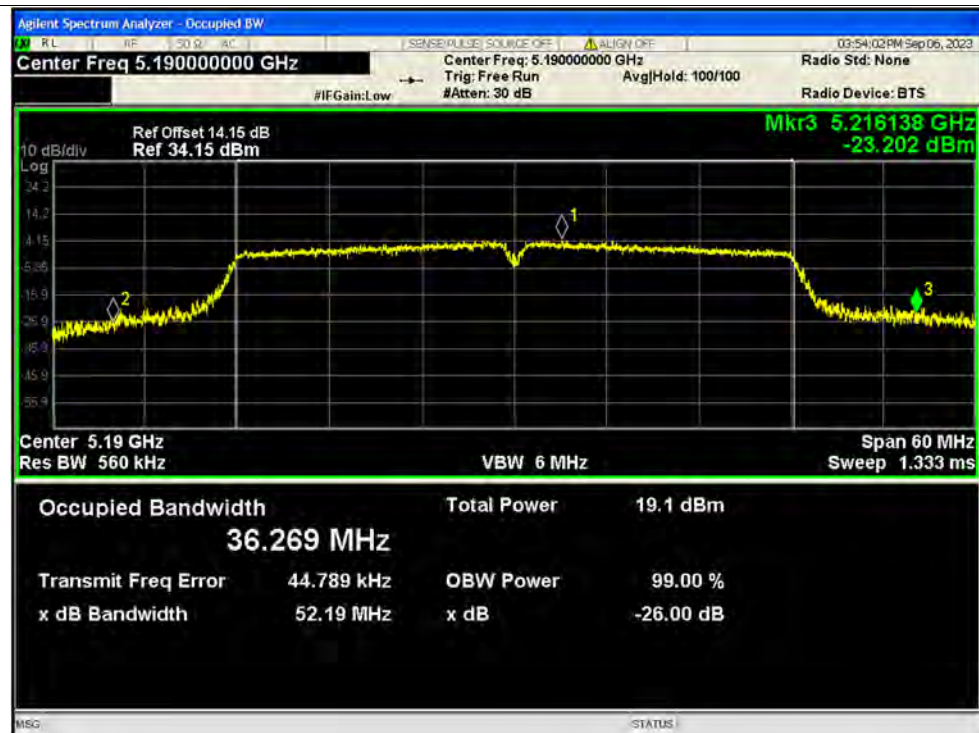
-26dB Bandwidth NVNT ac20 5240MHz Ant2 MIMO



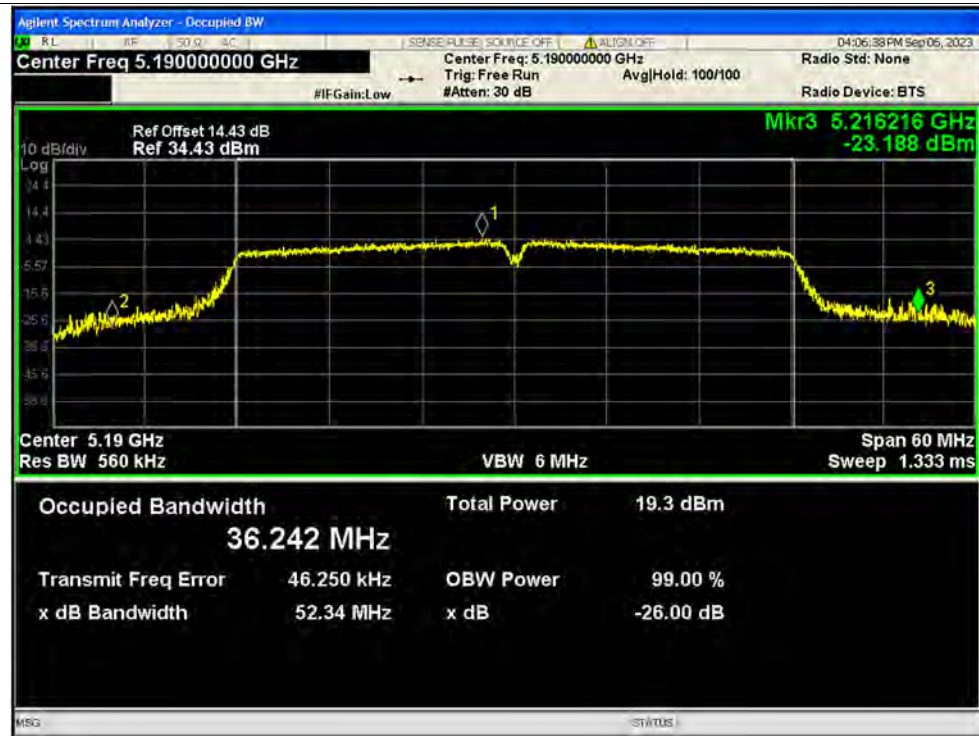
-26dB Bandwidth NVNT ac40 5190MHz Ant1 SISO



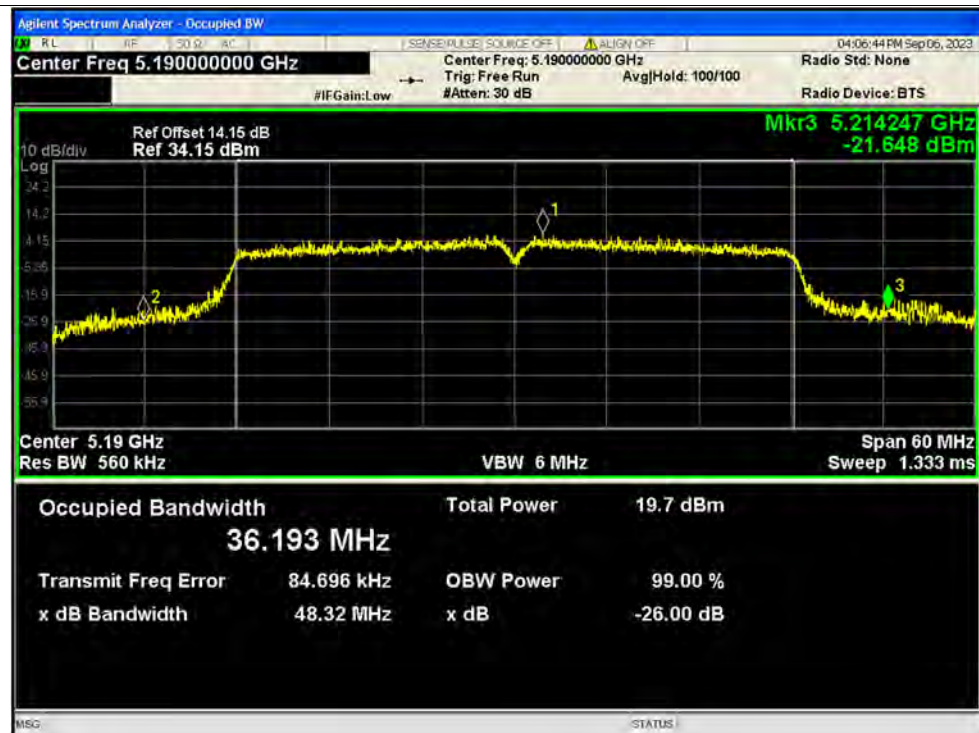
-26dB Bandwidth NVNT ac40 5190MHz Ant2 SISO



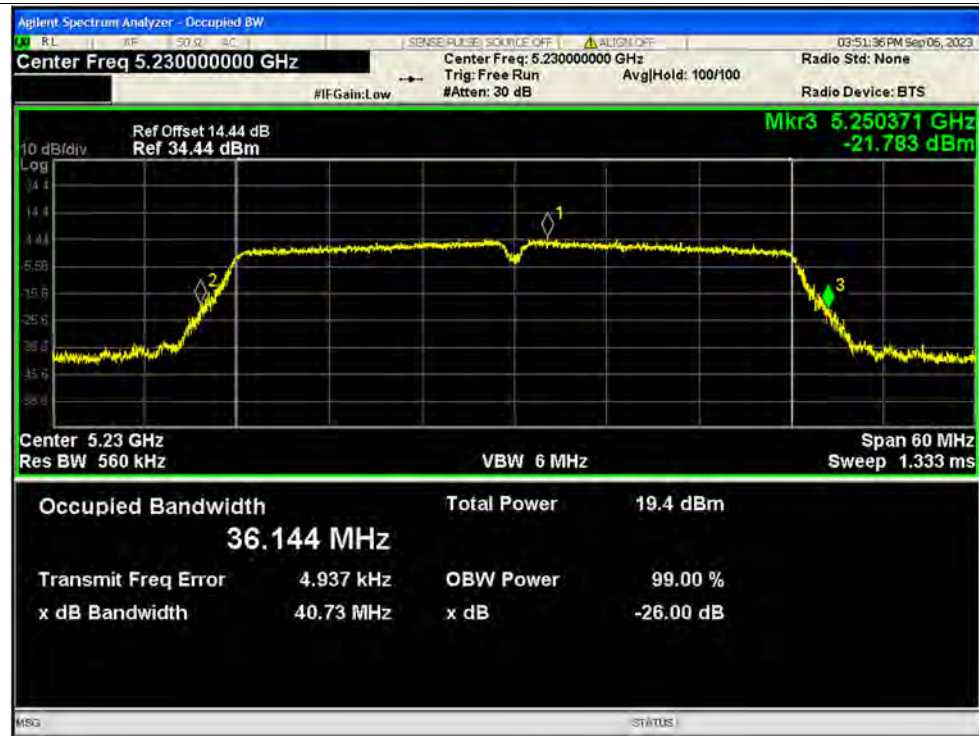
-26dB Bandwidth NVNT ac40 5190MHz Ant1 MIMO



-26dB Bandwidth NVNT ac40 5190MHz Ant2 MIMO



-26dB Bandwidth NVNT ac40 5230MHz Ant1 SISO



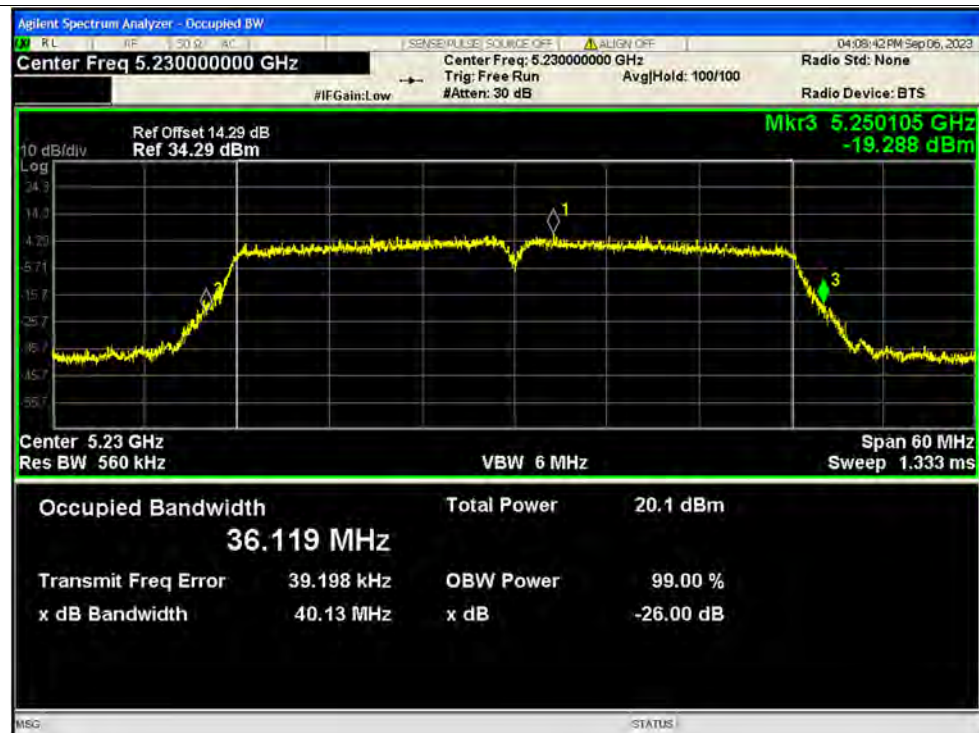
-26dB Bandwidth NVNT ac40 5230MHz Ant2 SISO



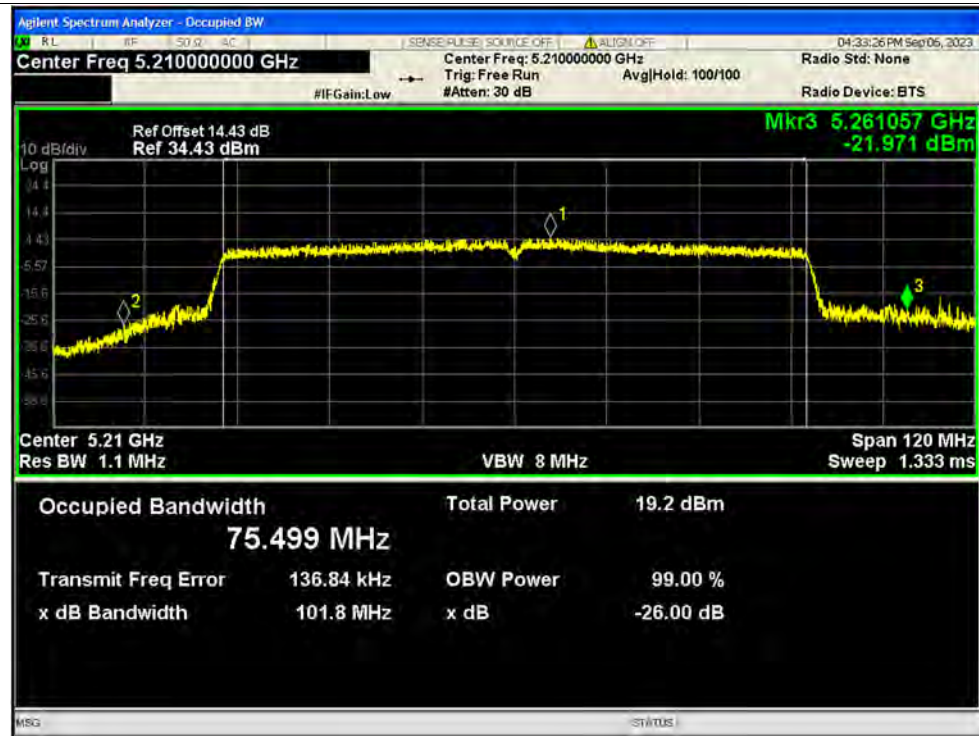
-26dB Bandwidth NVNT ac40 5230MHz Ant1 MIMO



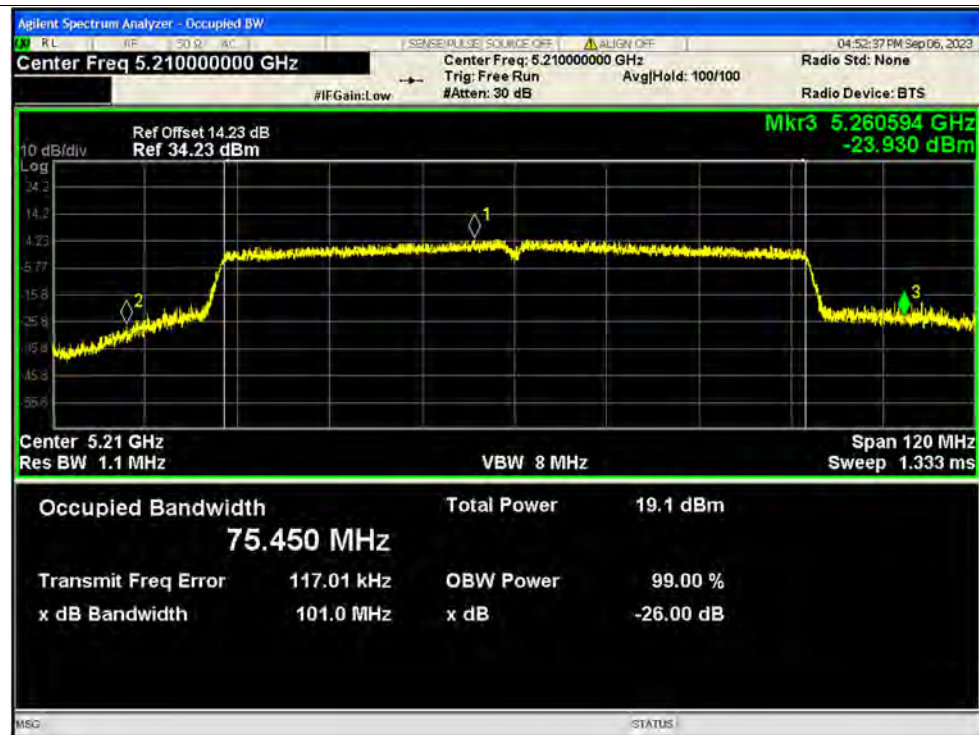
-26dB Bandwidth NVNT ac40 5230MHz Ant2 MIMO



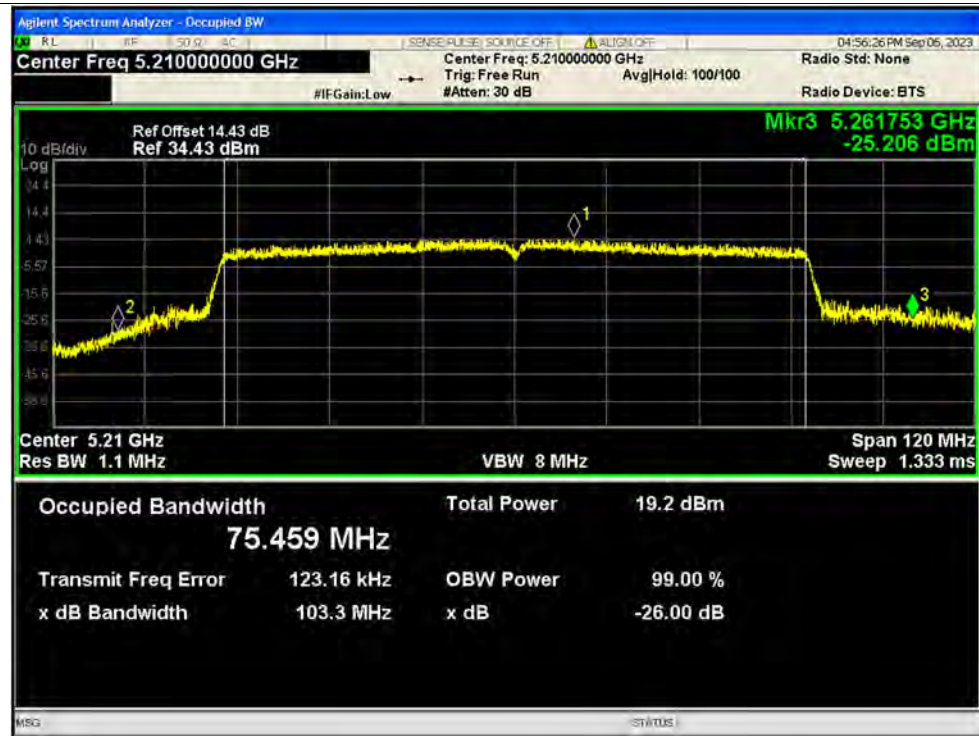
-26dB Bandwidth NVNT ac80 5210MHz Ant1 SISO



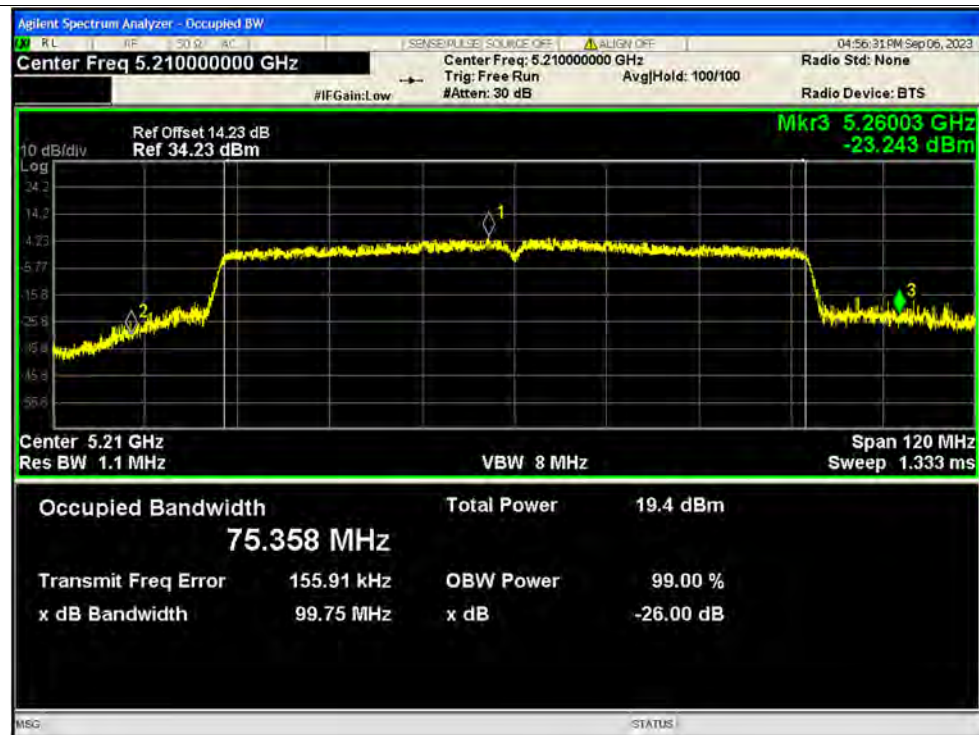
-26dB Bandwidth NVNT ac80 5210MHz Ant2 SISO



-26dB Bandwidth NVNT ac80 5210MHz Ant1 MIMO

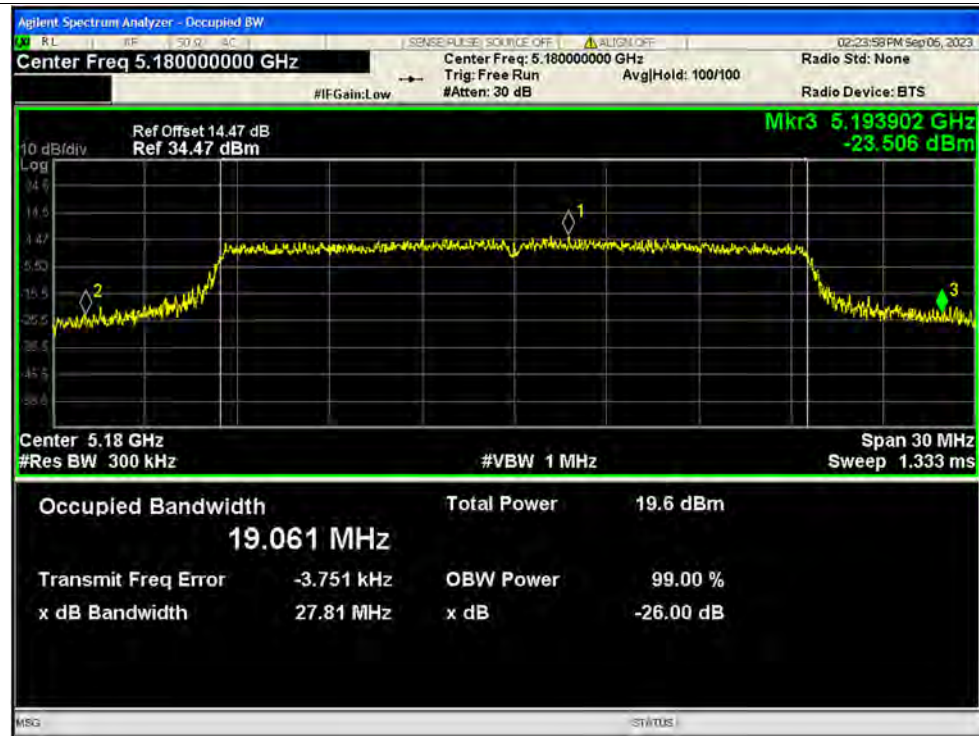


-26dB Bandwidth NVNT ac80 5210MHz Ant2 MIMO

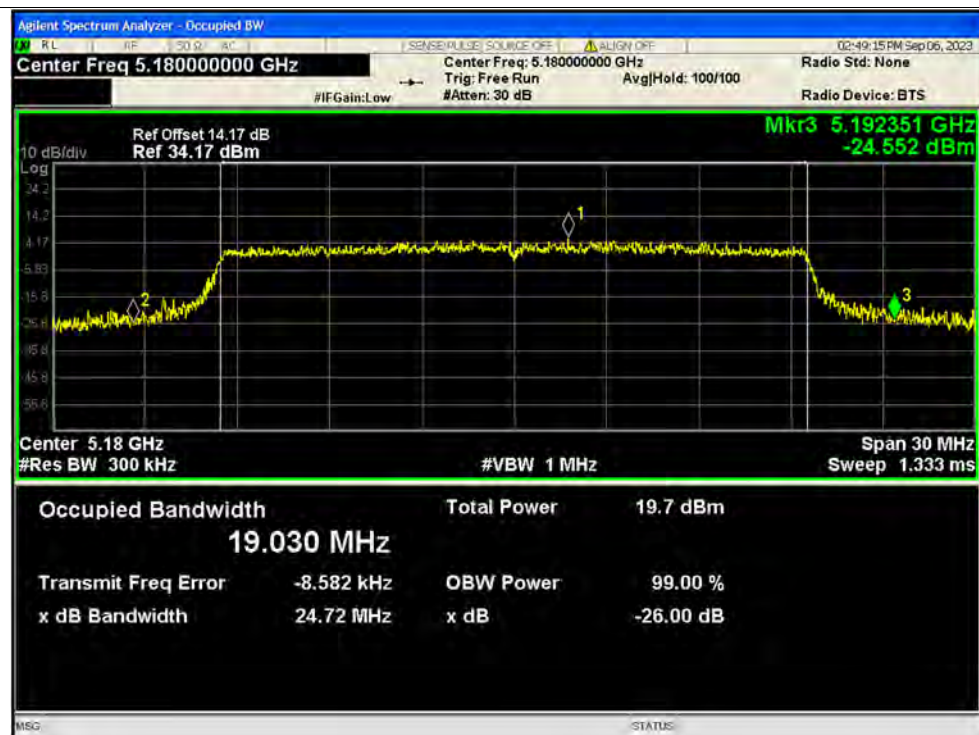




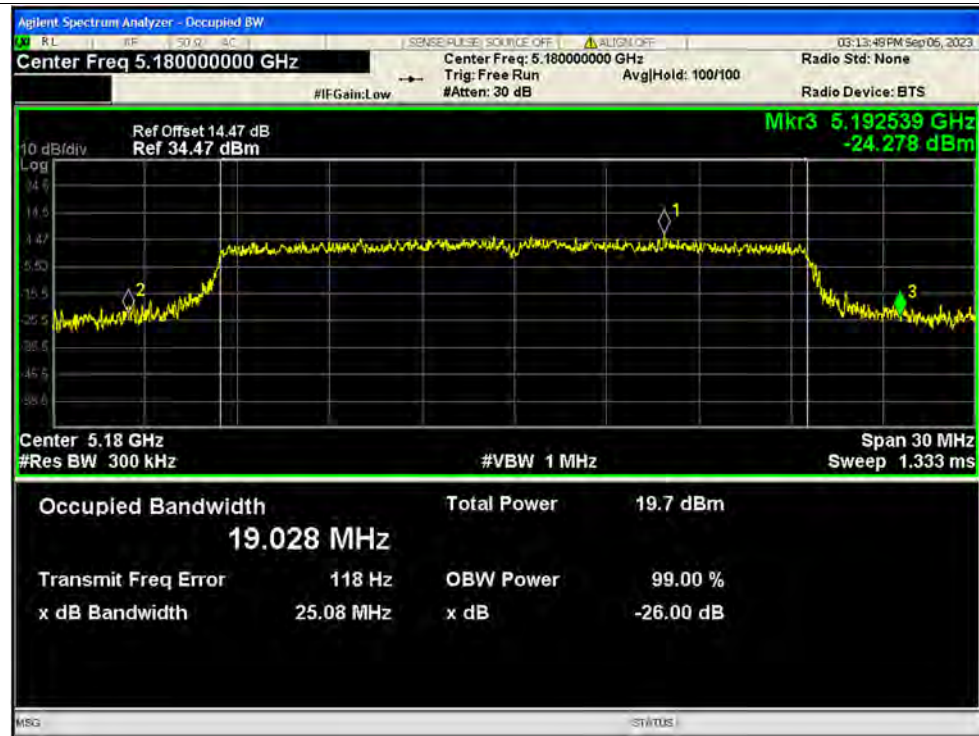
-26dB Bandwidth NVNT ax20 5180MHz Ant1 SISO



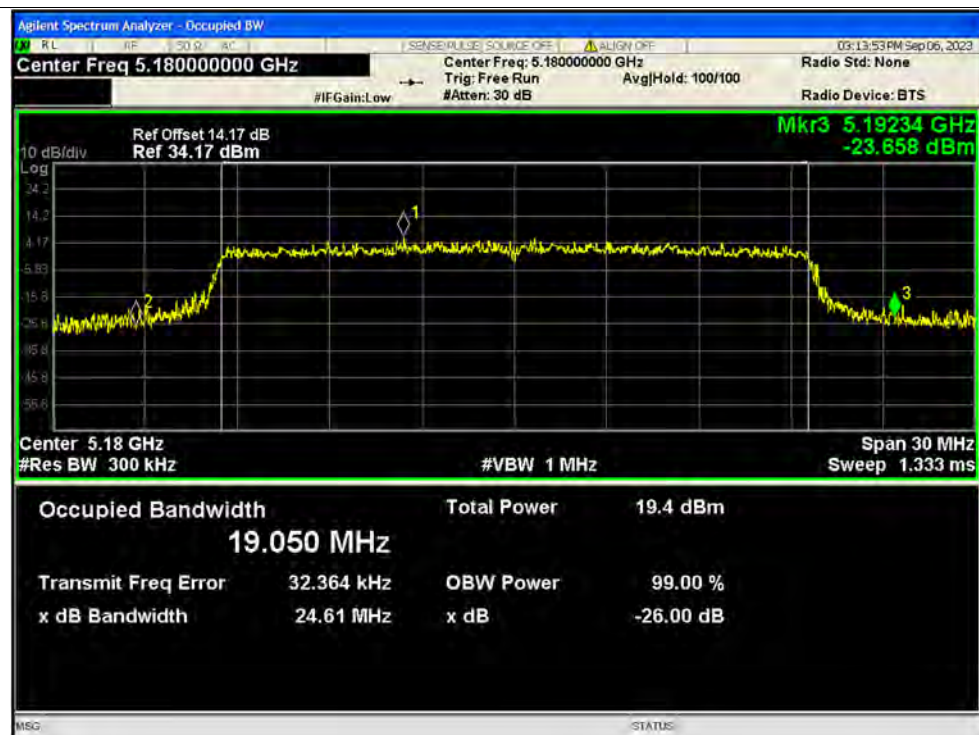
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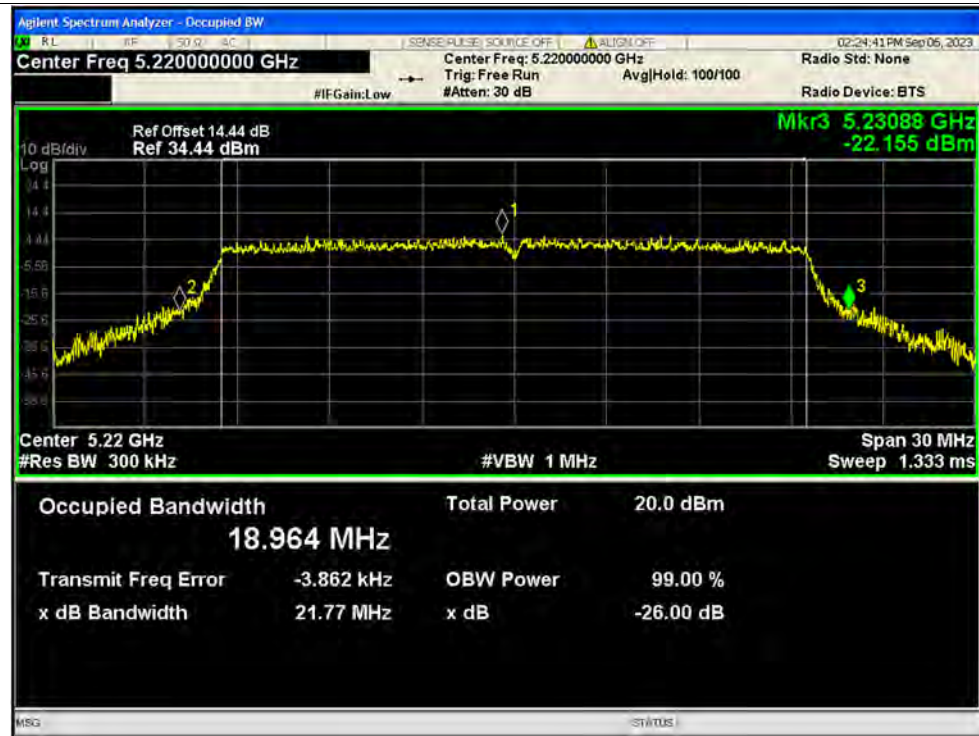
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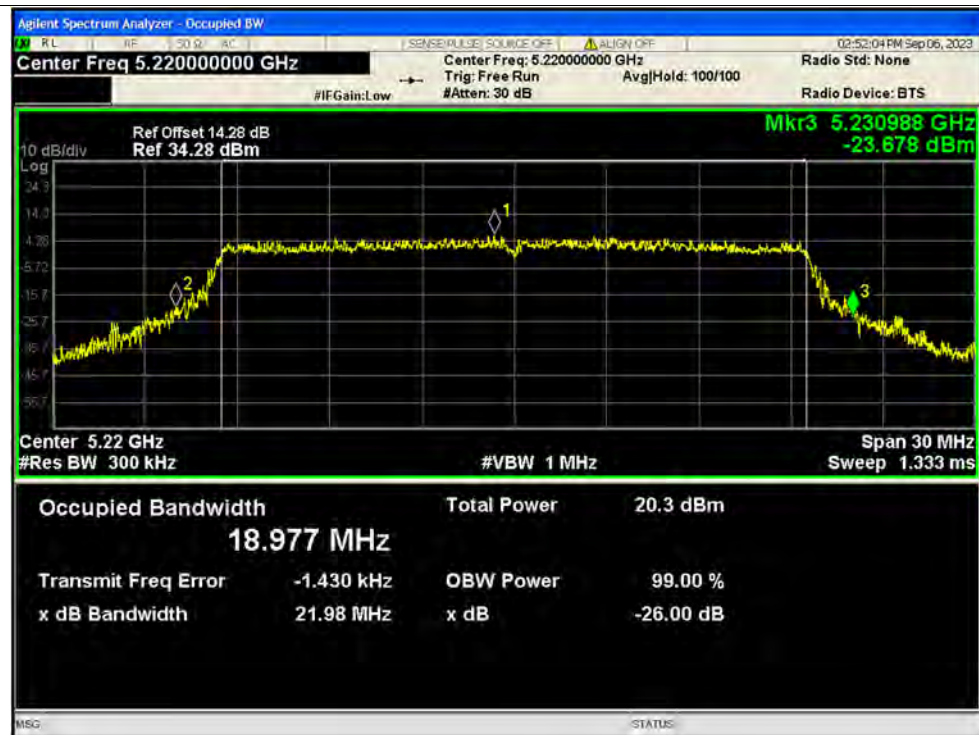
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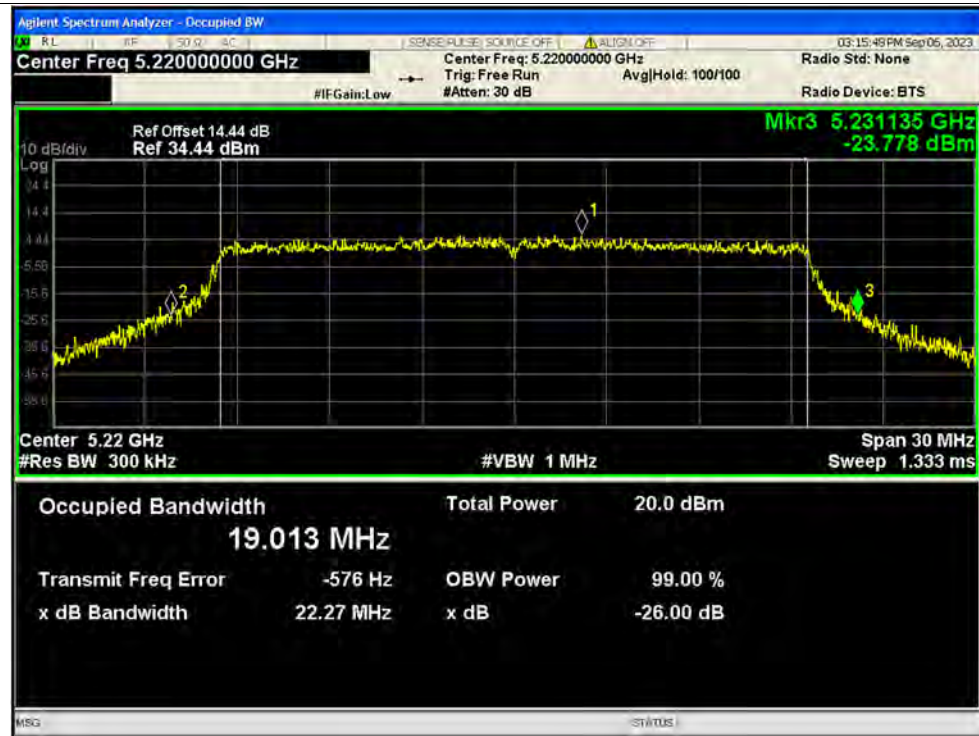
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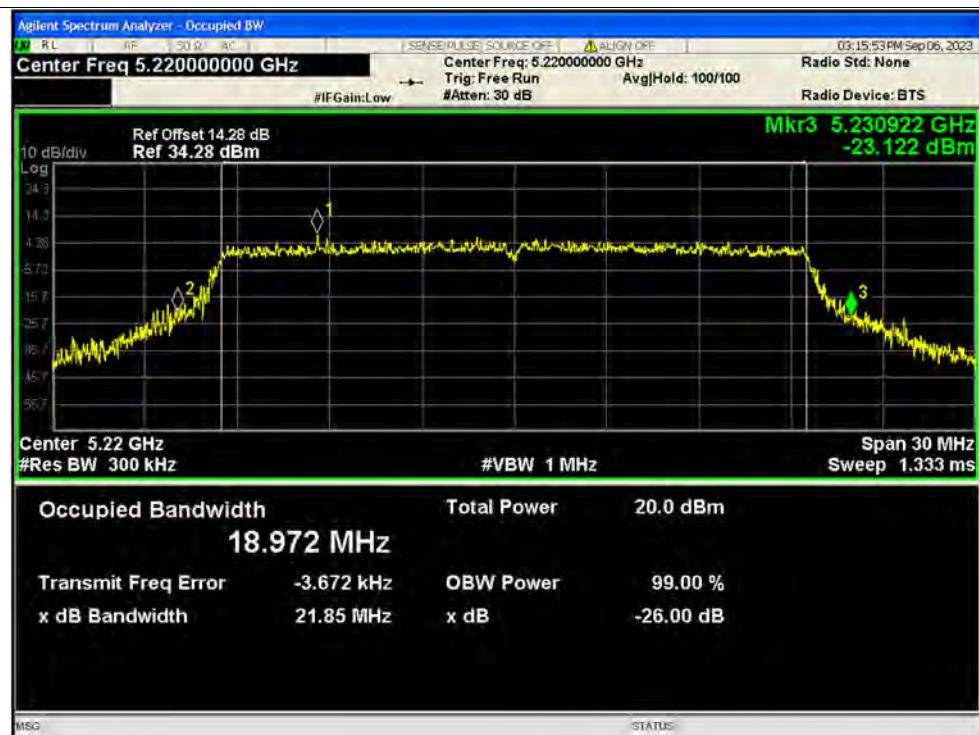
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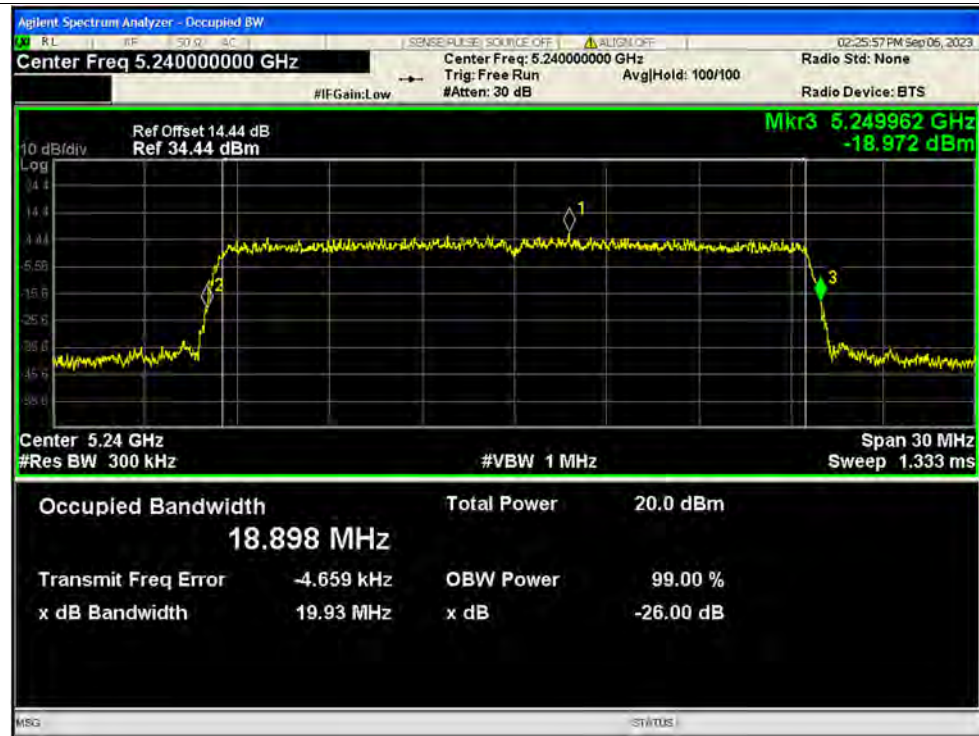
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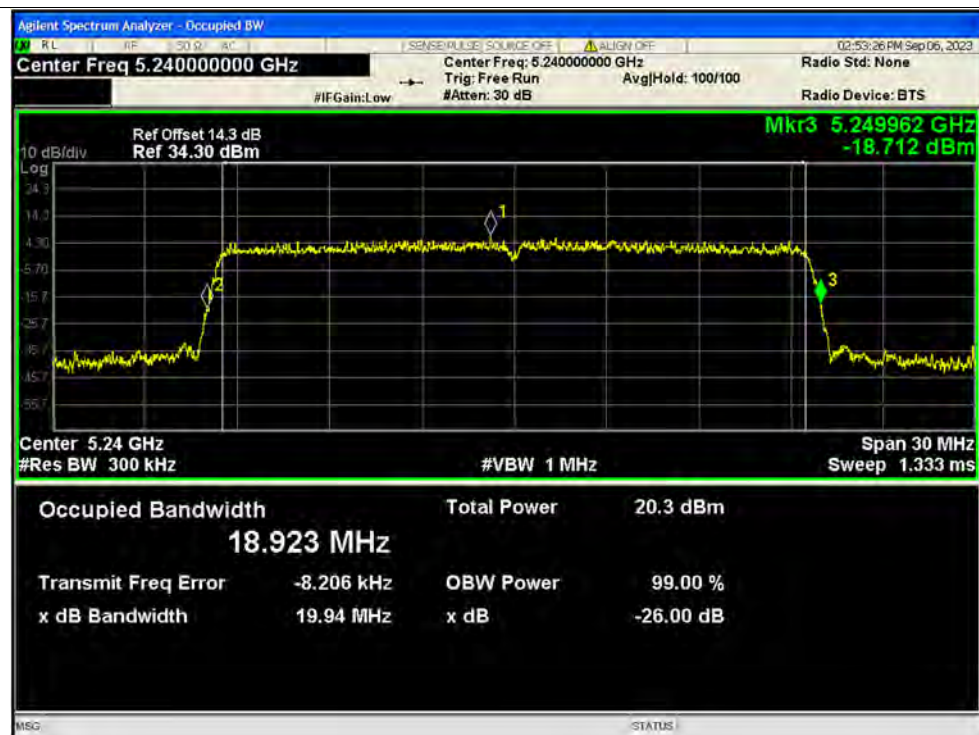
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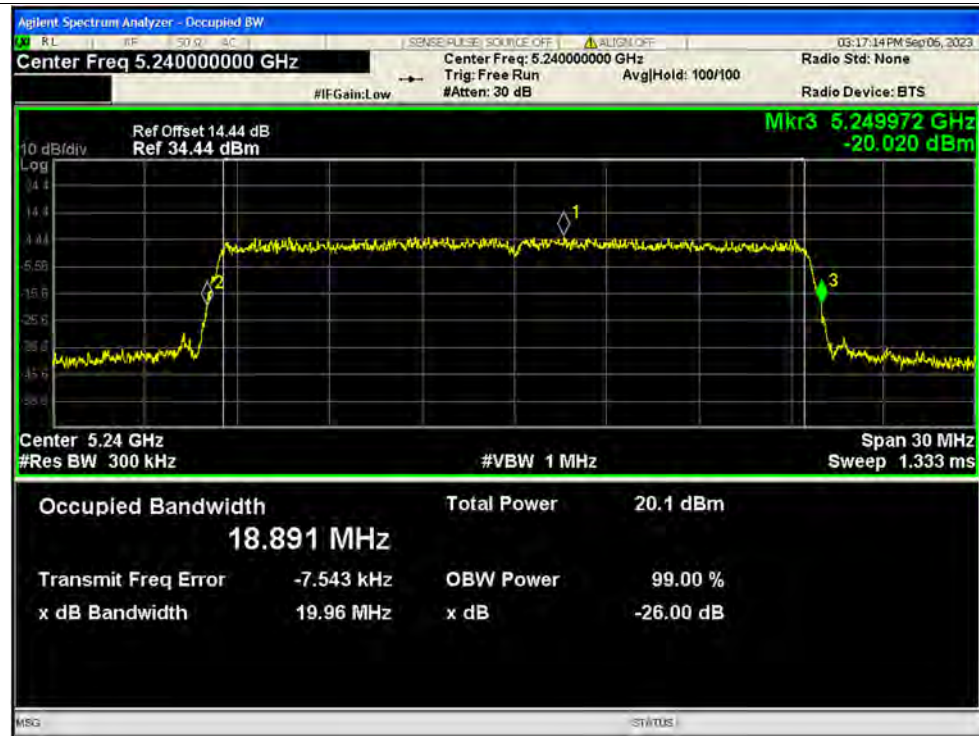
-26dB Bandwidth NVNT ax20 5240MHz Ant1 SISO



-26dB Bandwidth NVNT ax20 5240MHz Ant2 SISO



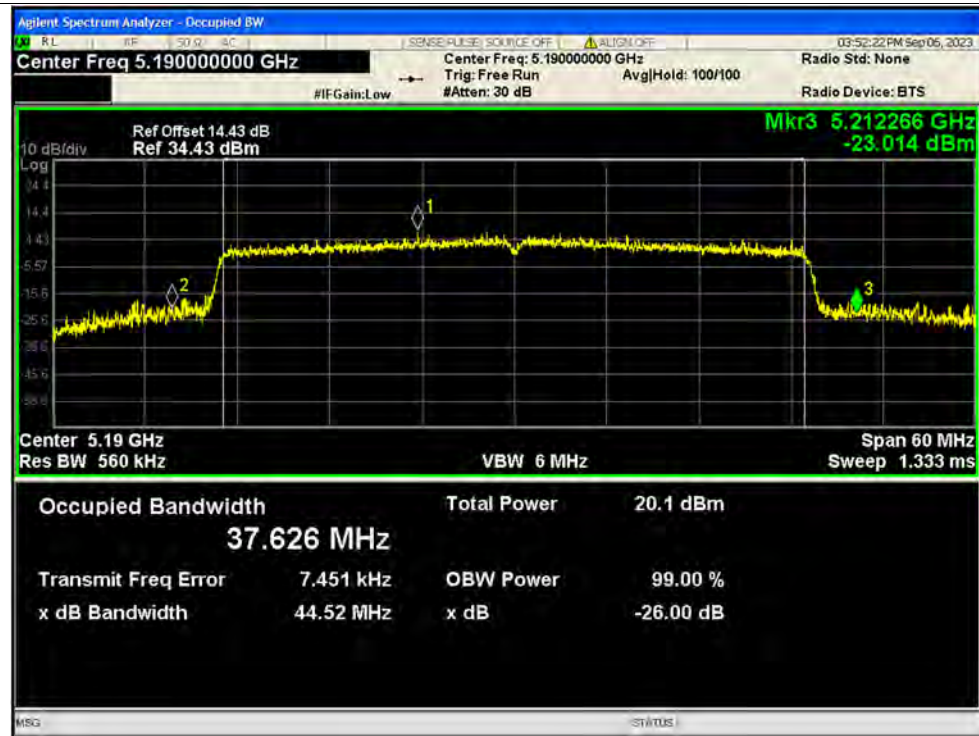
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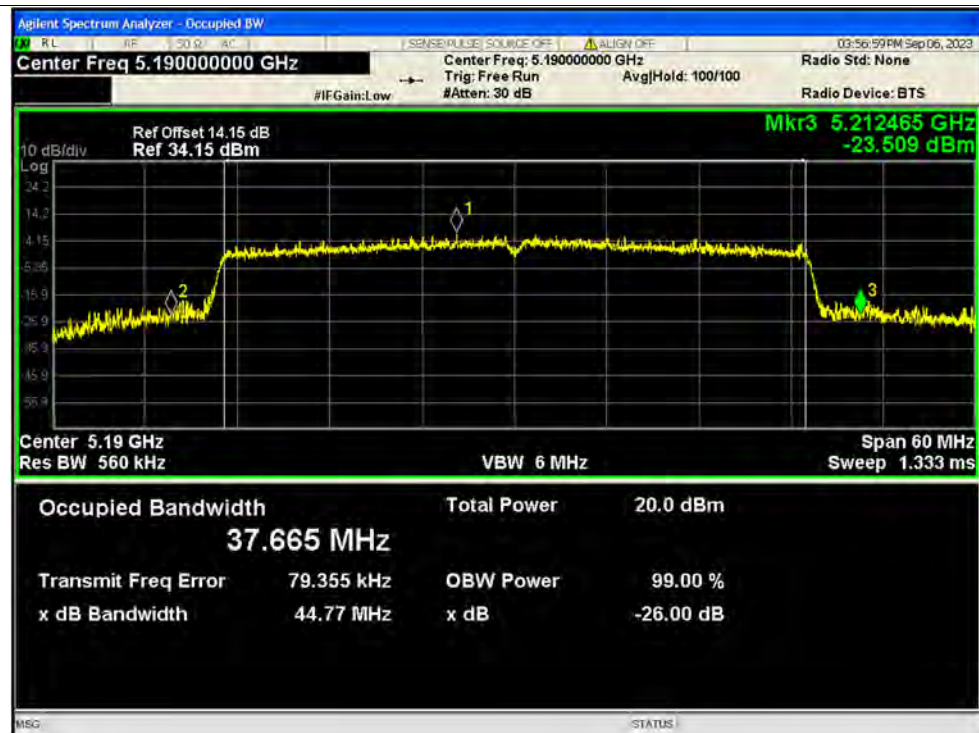
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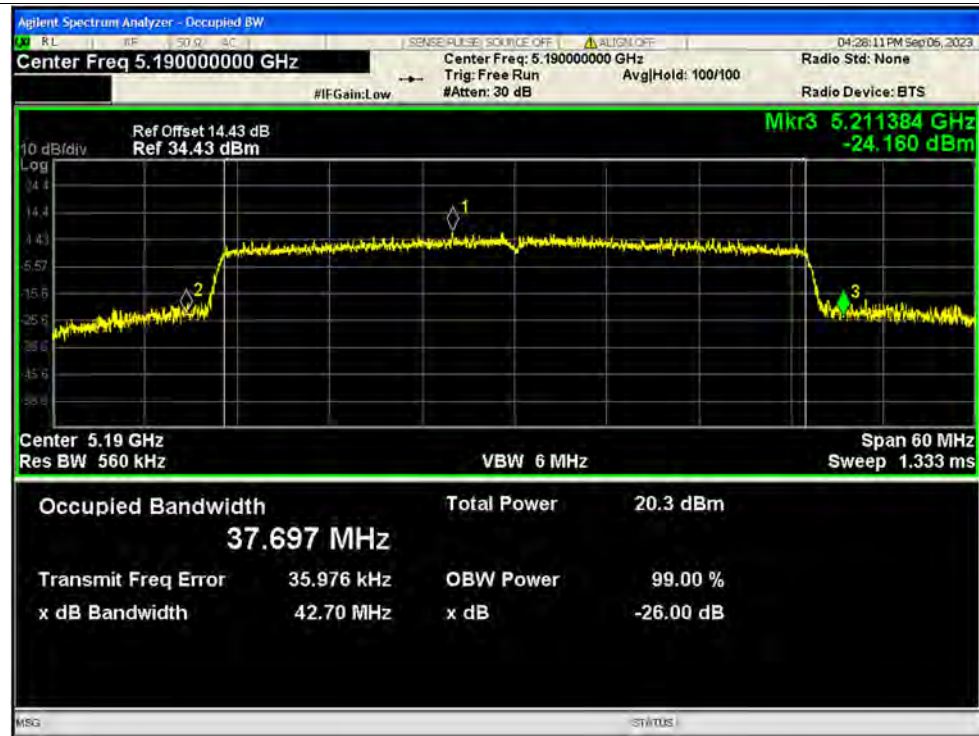
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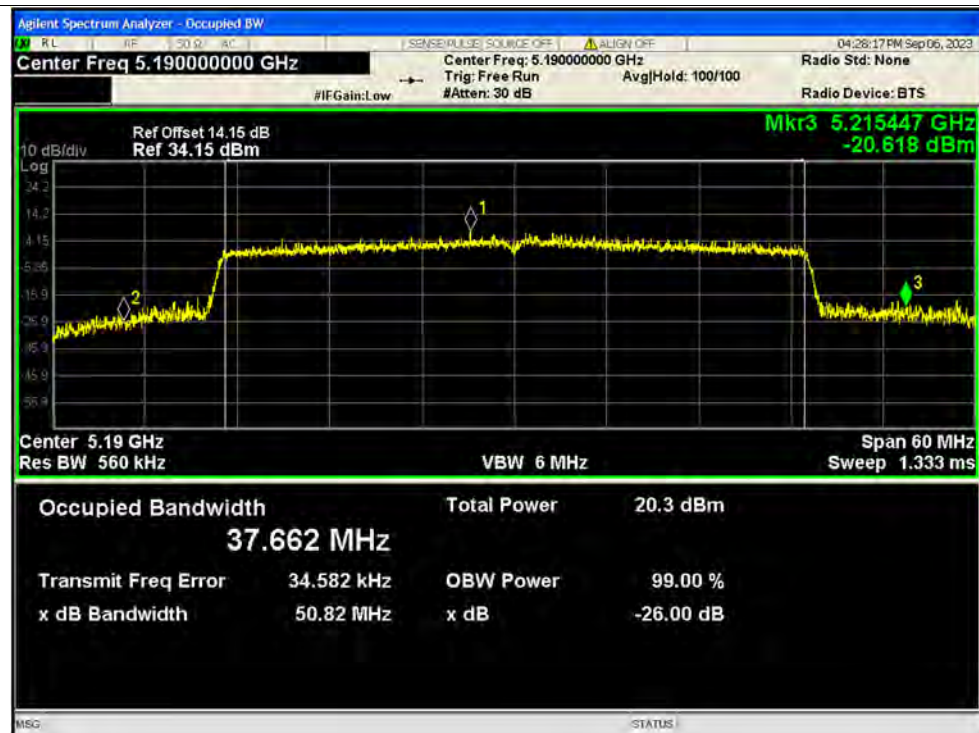
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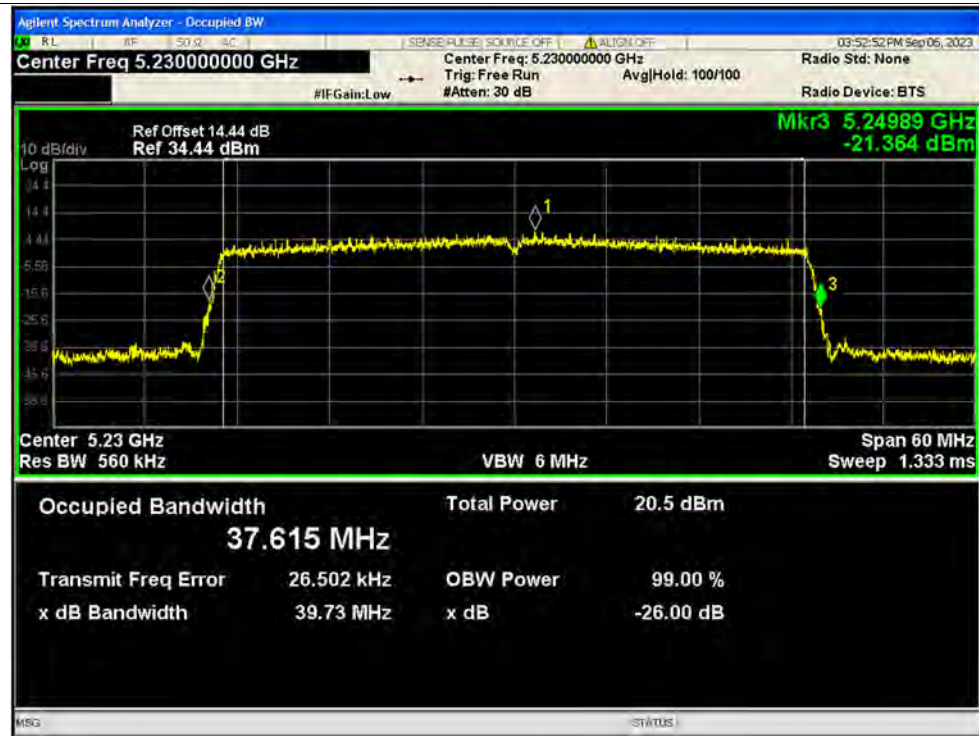
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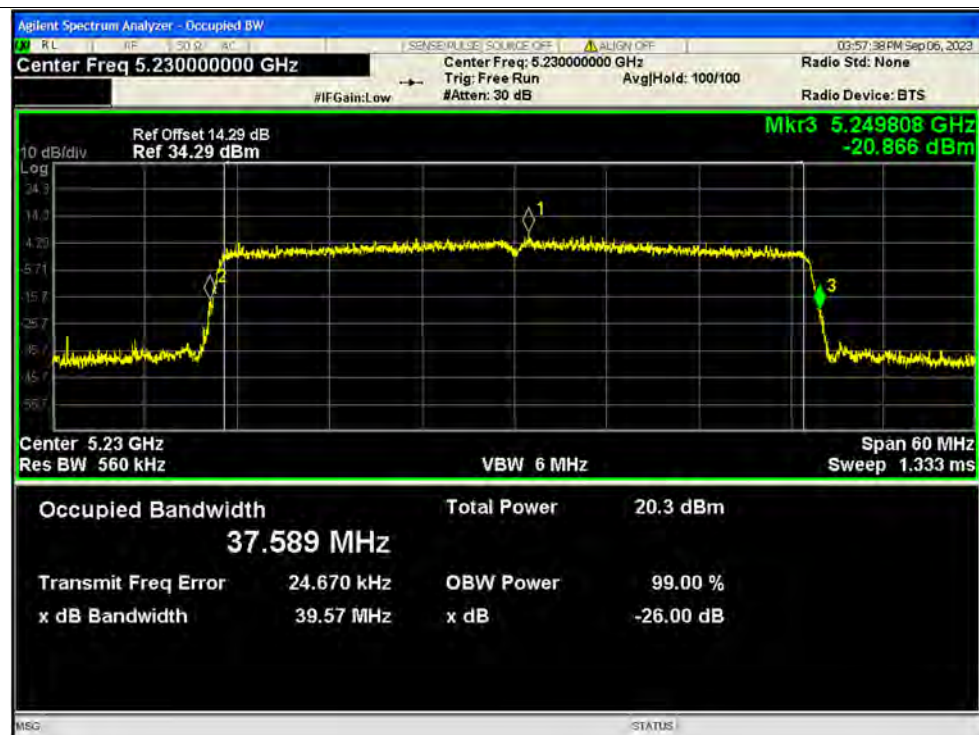
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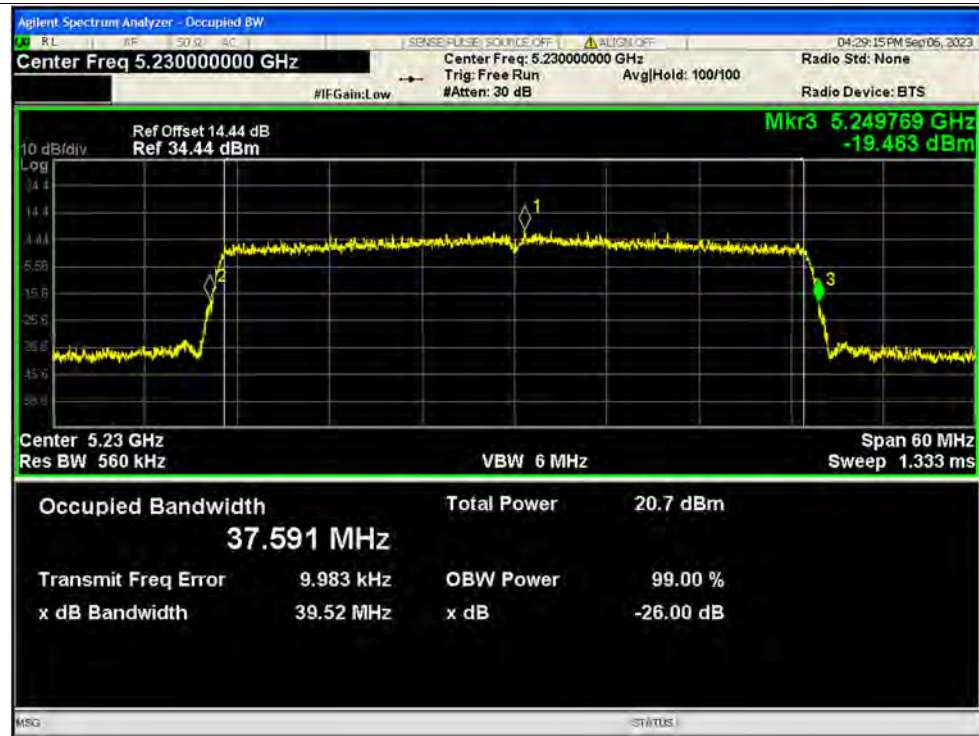
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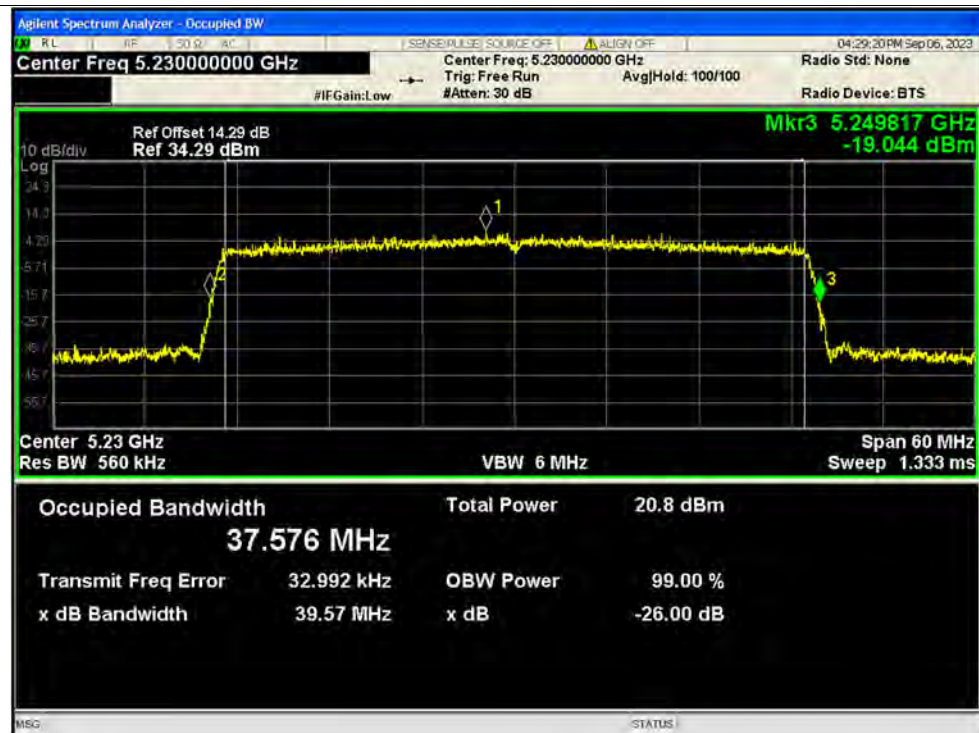
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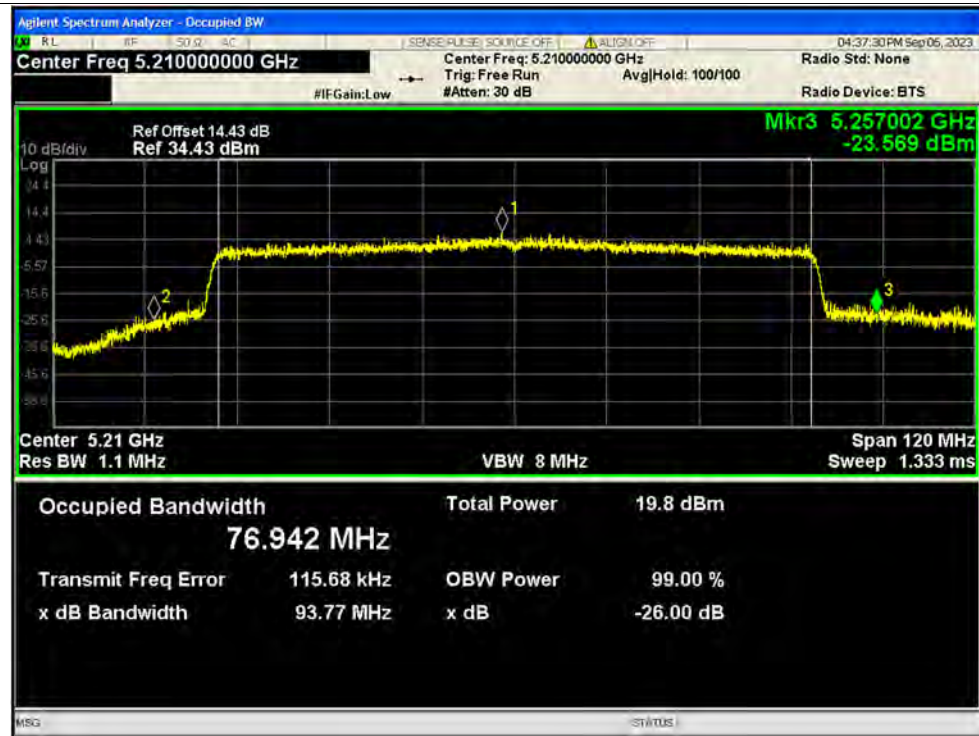
-26dB Bandwidth NVNT ax40 5230MHz Ant1 MIMO



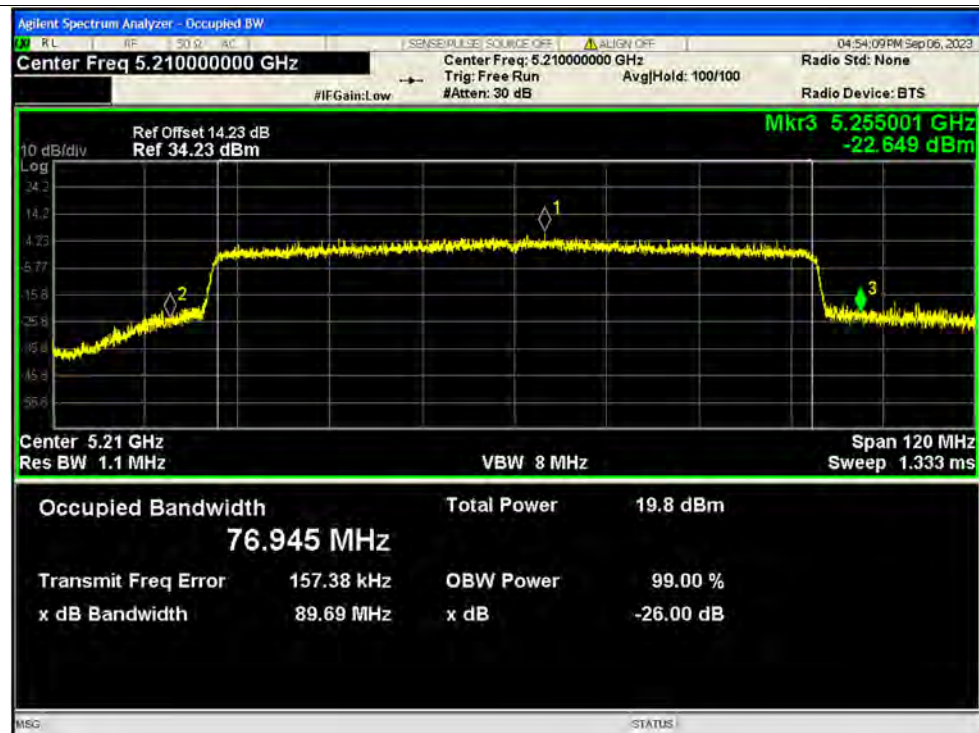
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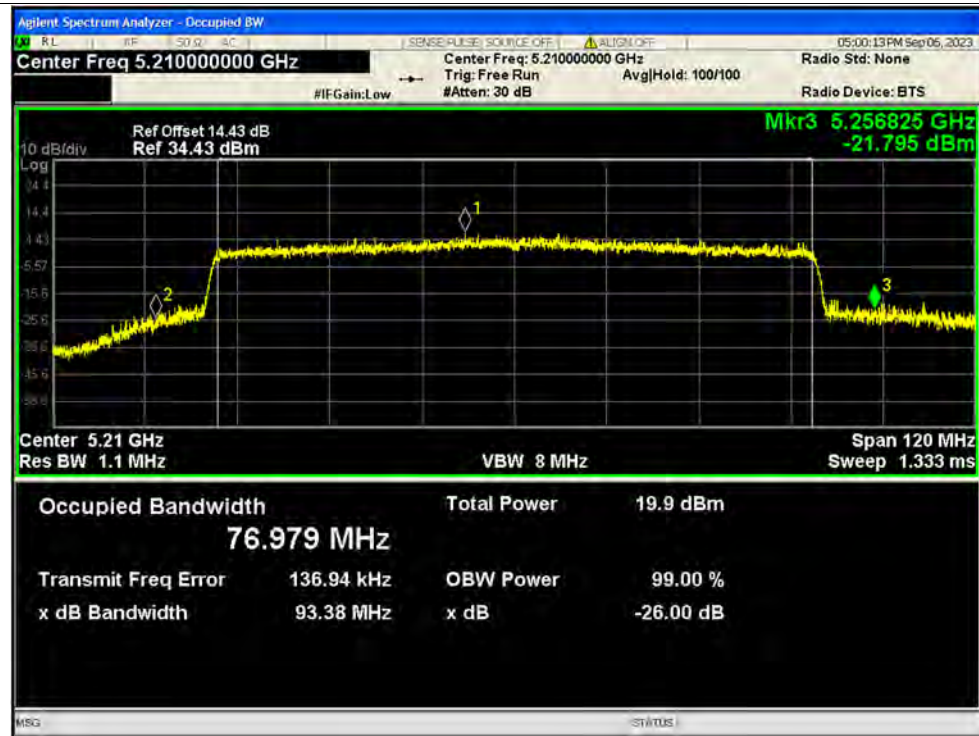
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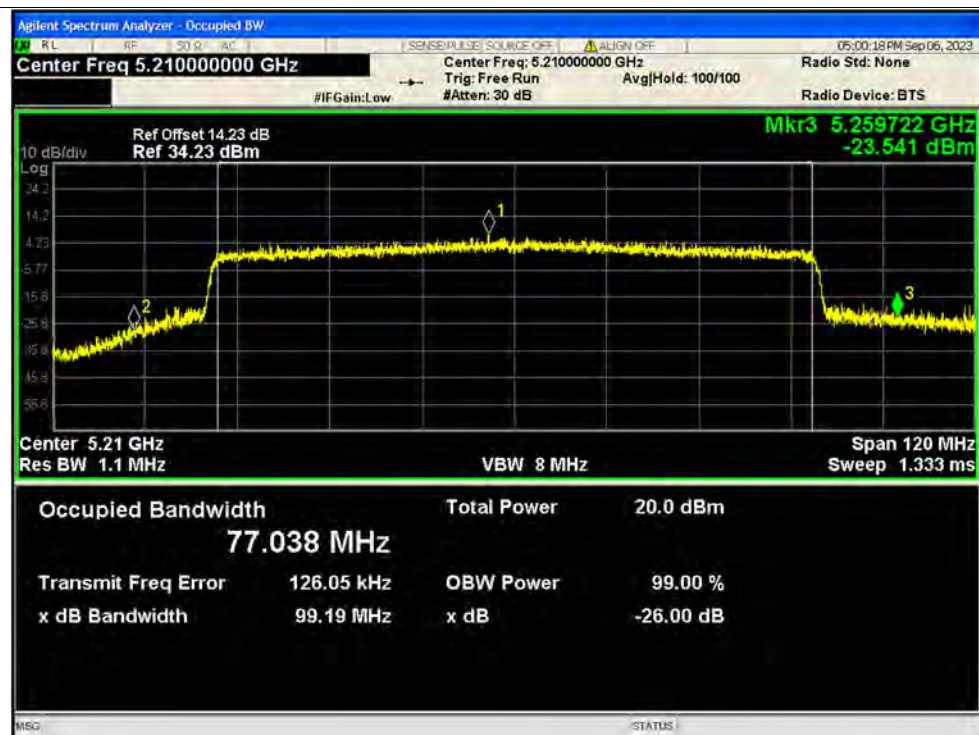
-26dB Bandwidth NVNT ax80 5210MHz Ant2 SISO



-26dB Bandwidth NVNT ax80 5210MHz Ant1 MIMO

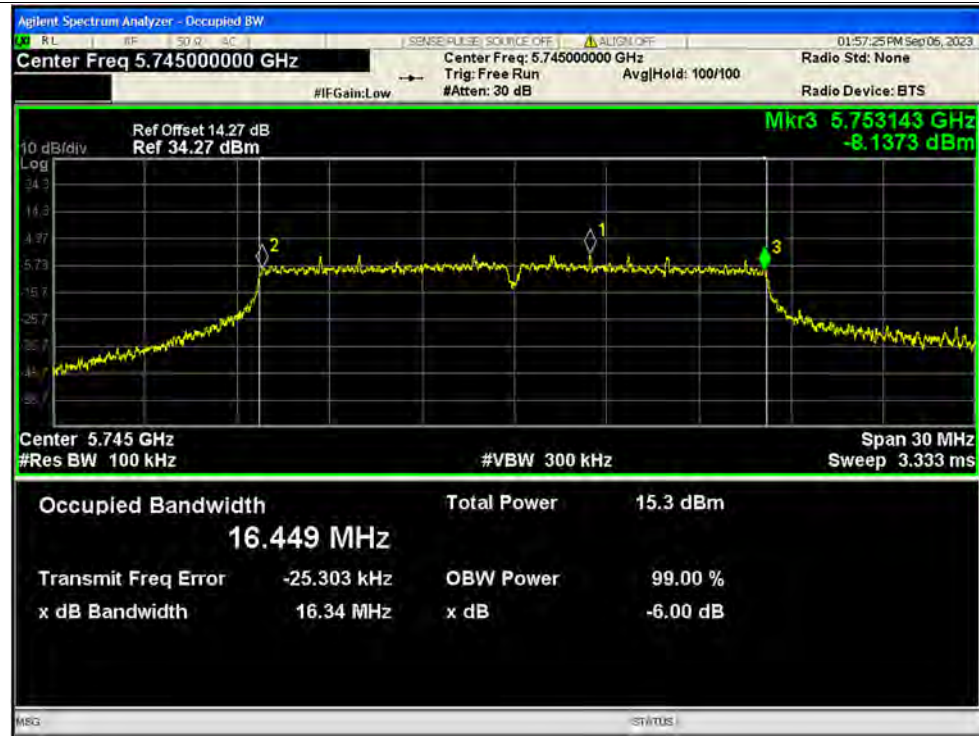


-26dB Bandwidth NVNT ax80 5210MHz Ant2 MIMO

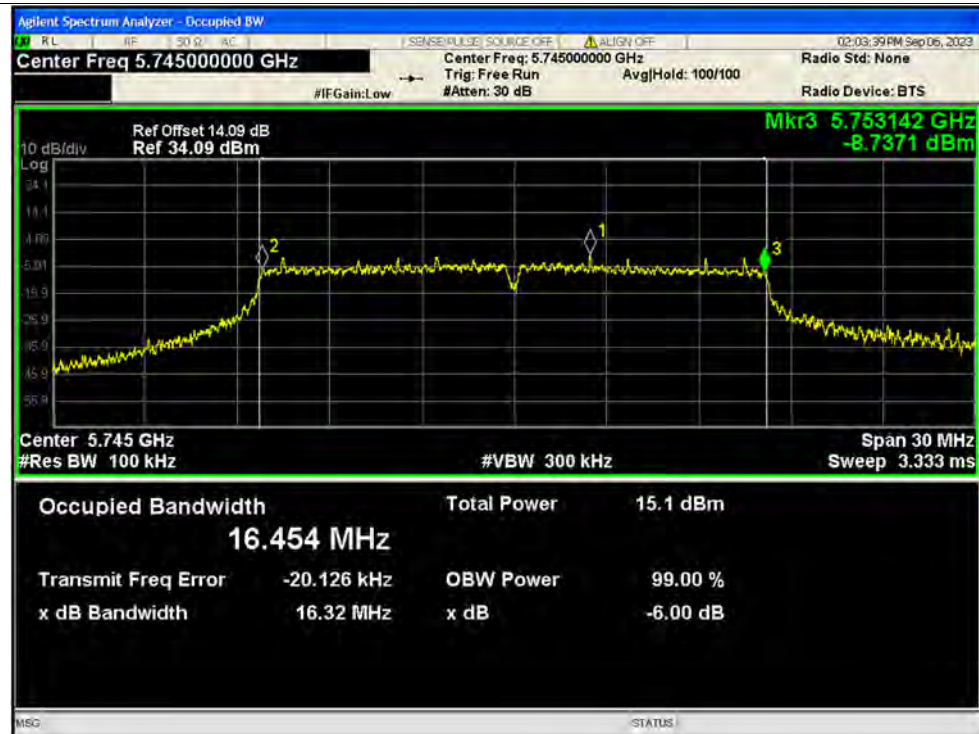


Test Graphs

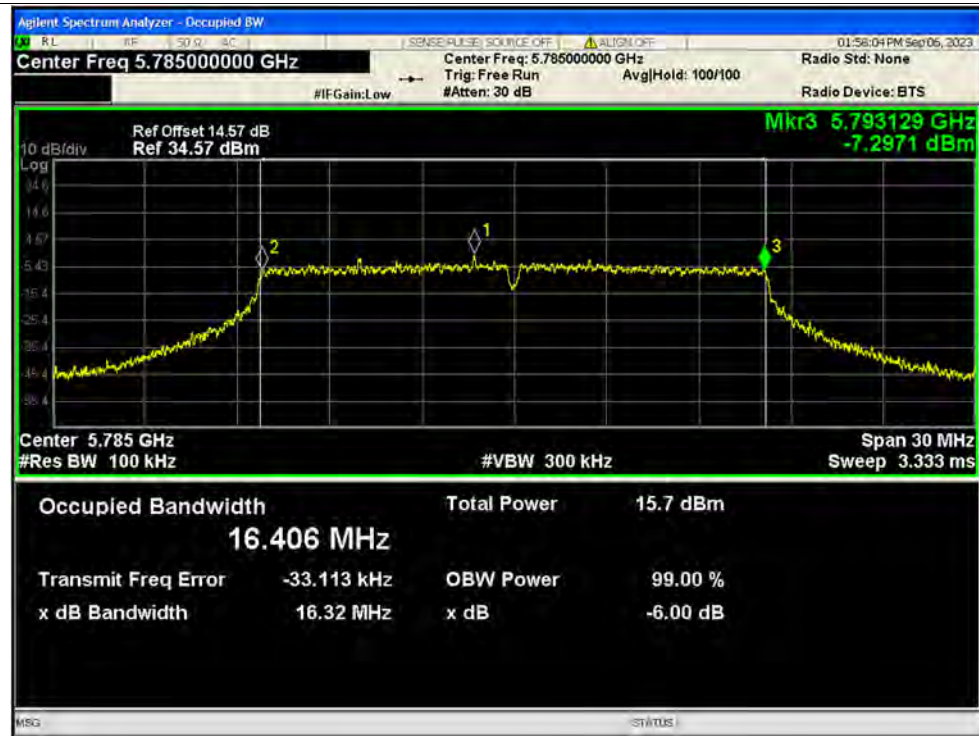
-6dB Bandwidth NVNT a 5745MHz Ant1 SISO



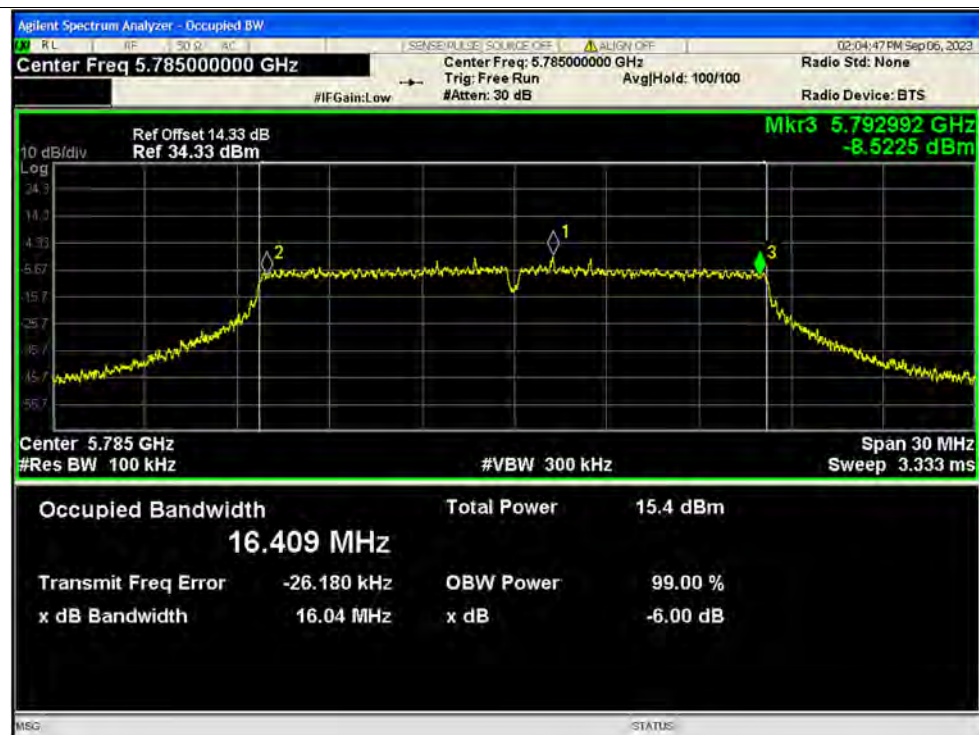
-6dB Bandwidth NVNT a 5745MHz Ant2 SISO



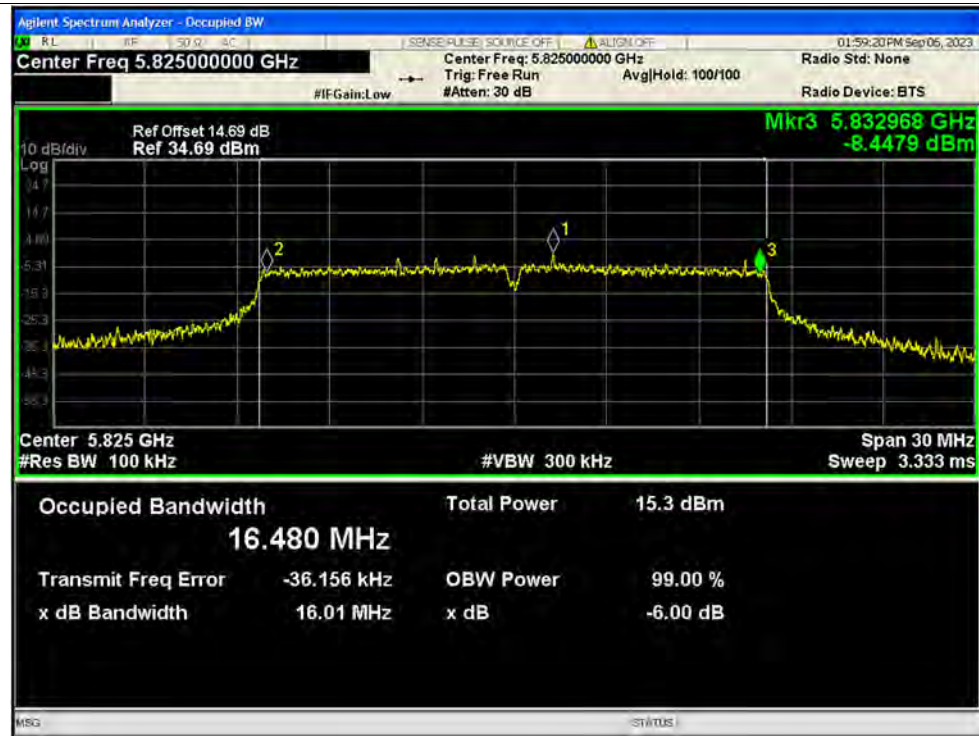
-6dB Bandwidth NVNT a 5785MHz Ant1 SISO



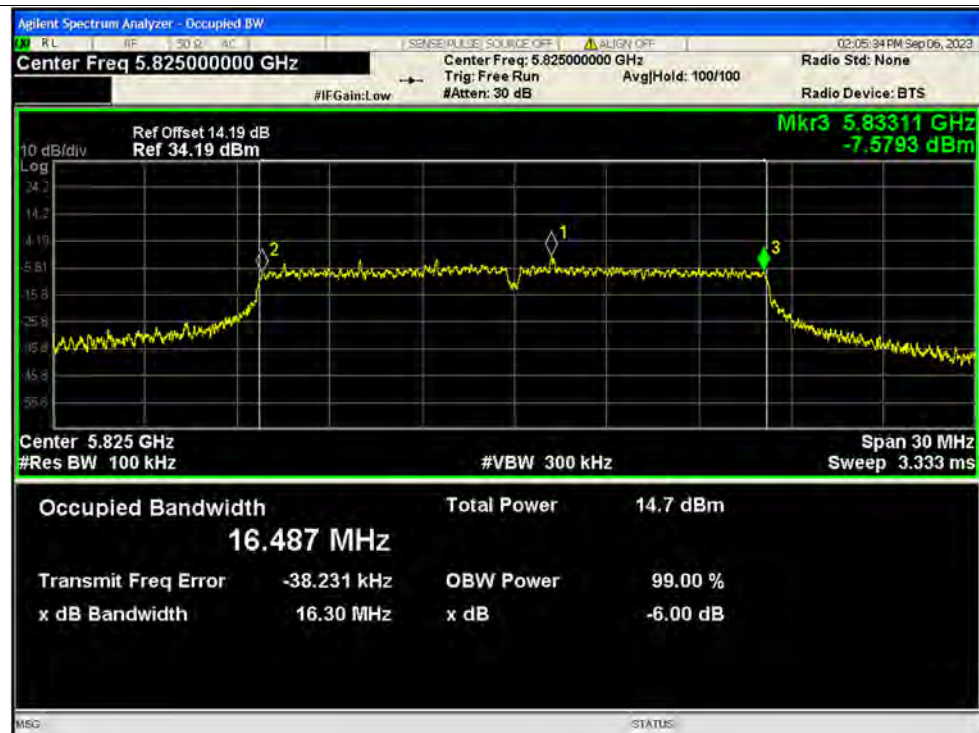
-6dB Bandwidth NVNT a 5785MHz Ant2 SISO



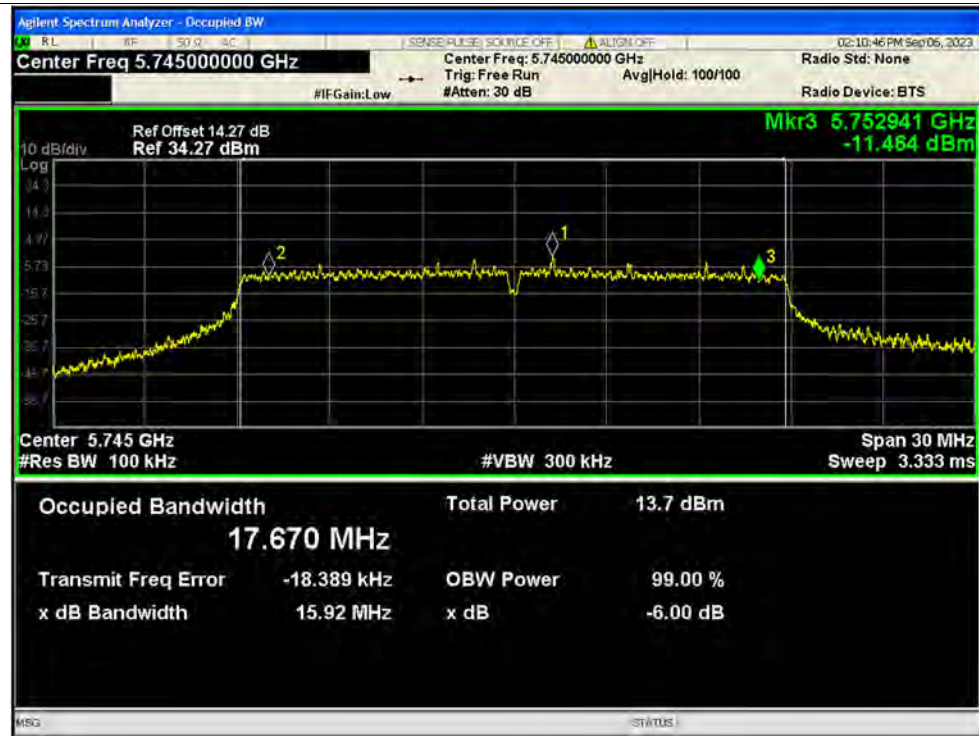
-6dB Bandwidth NVNT a 5825MHz Ant1 SISO



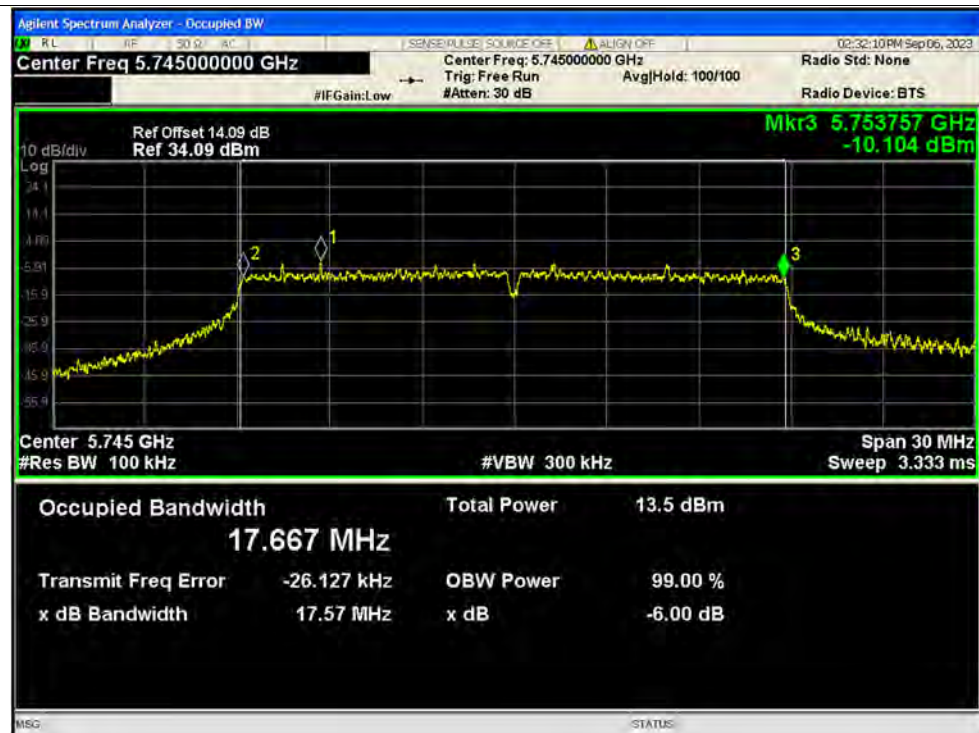
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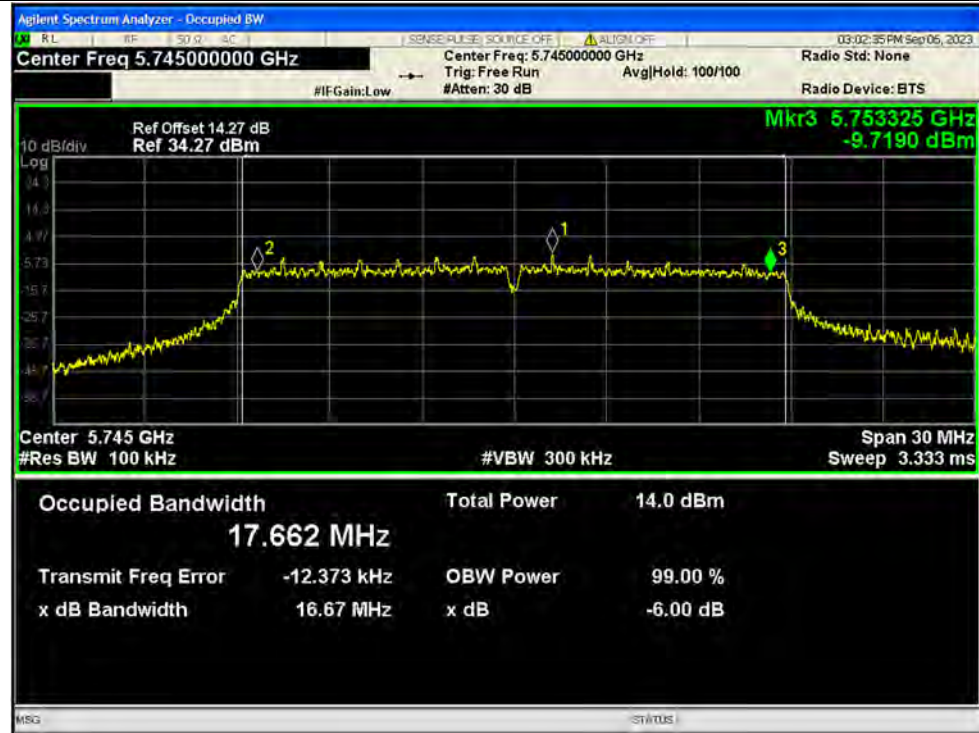
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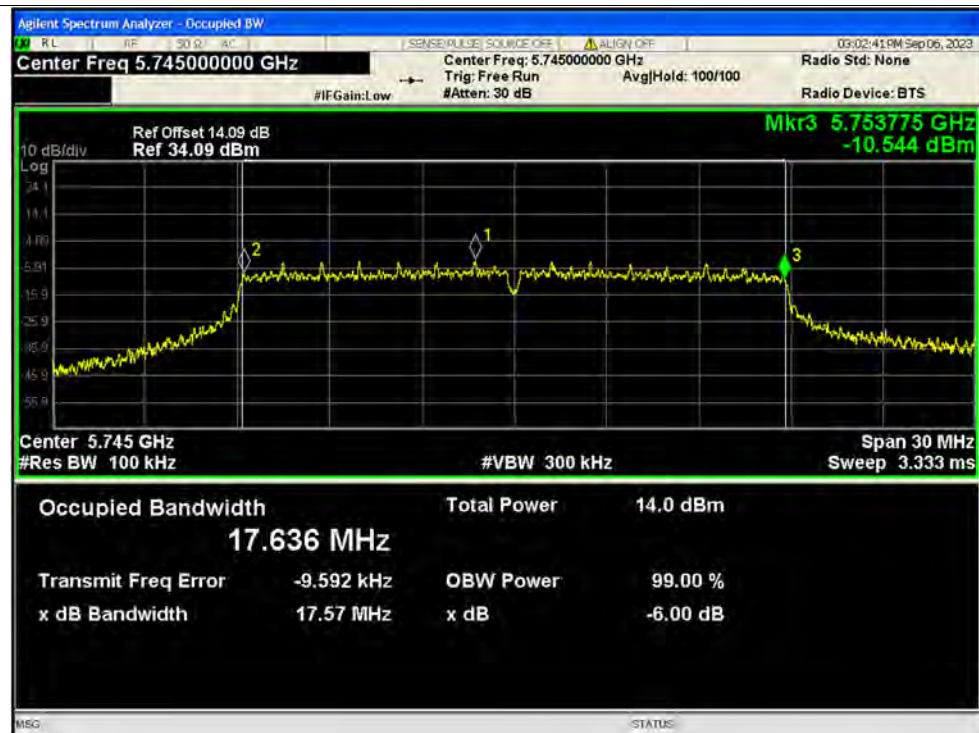
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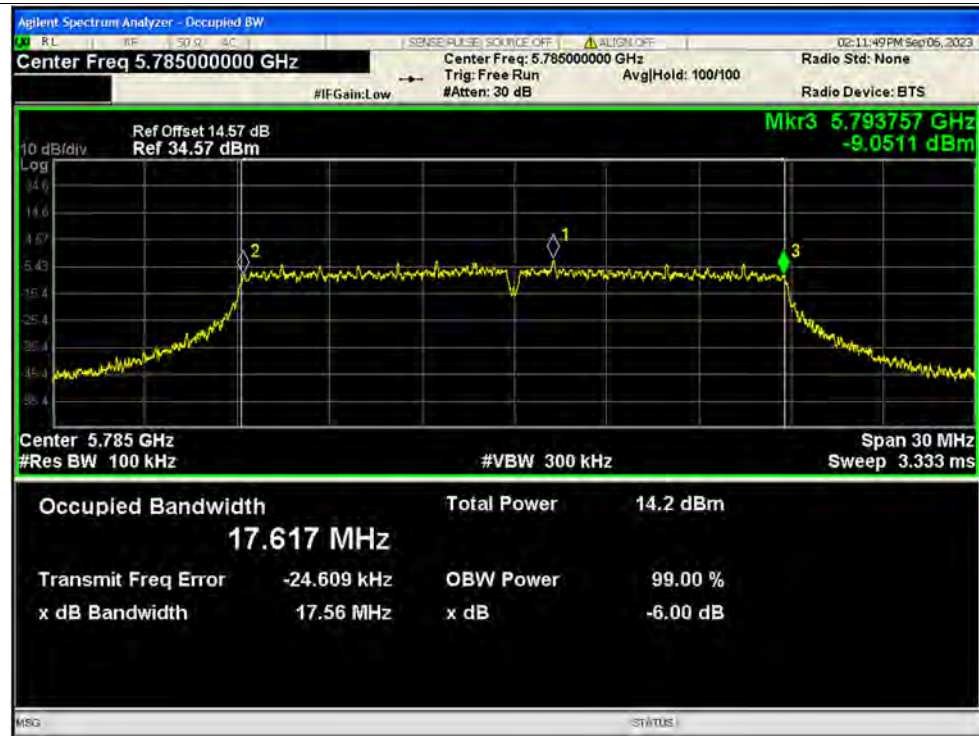
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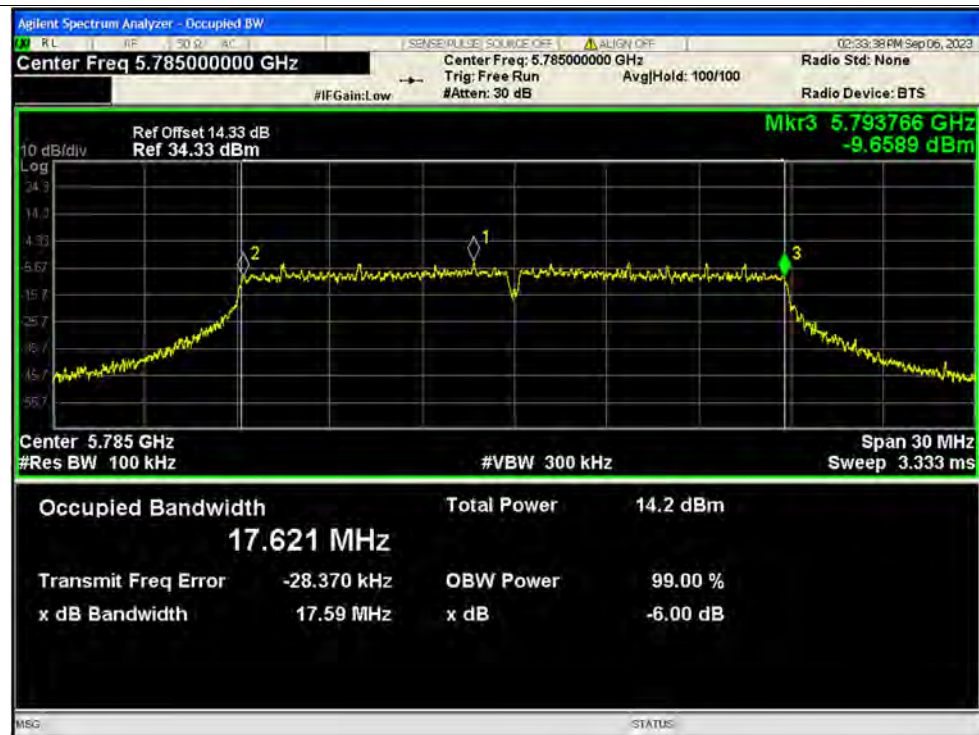
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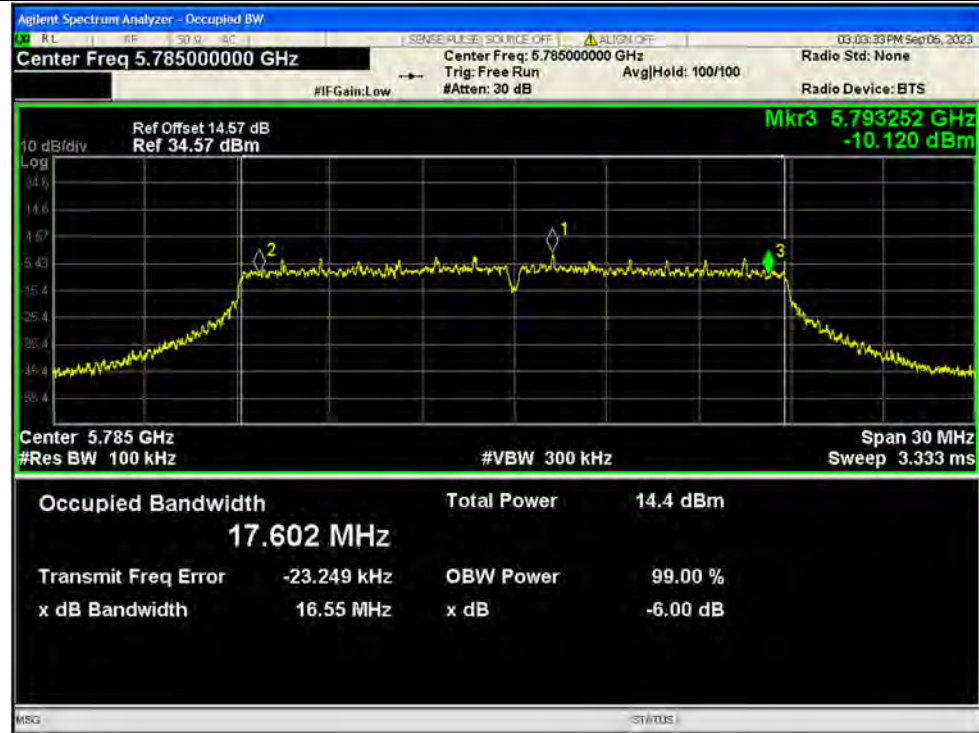
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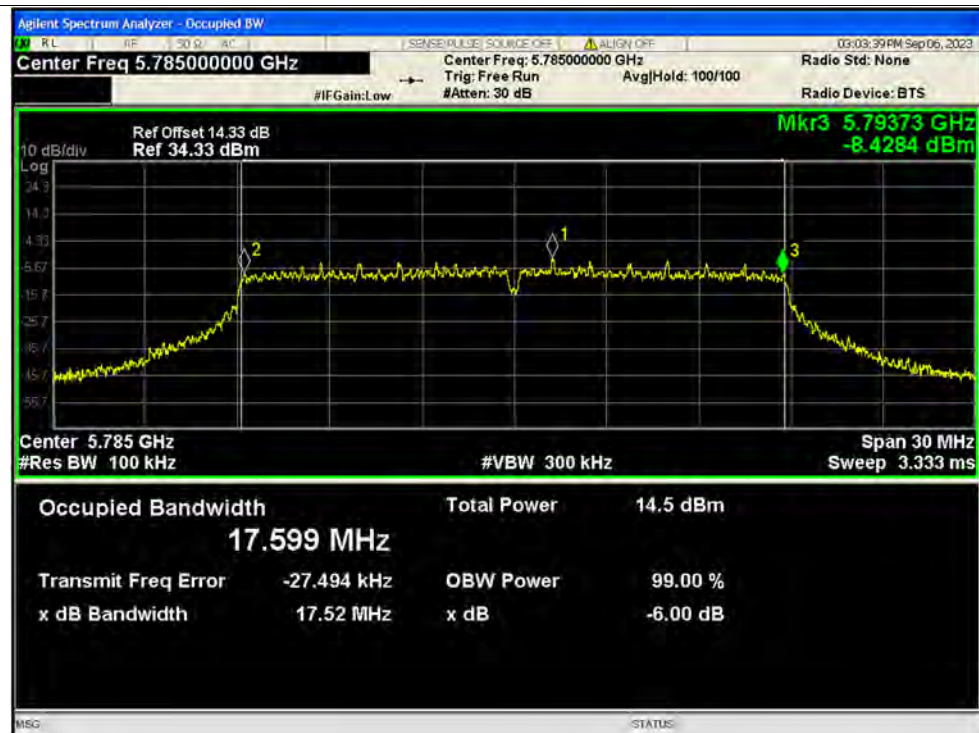
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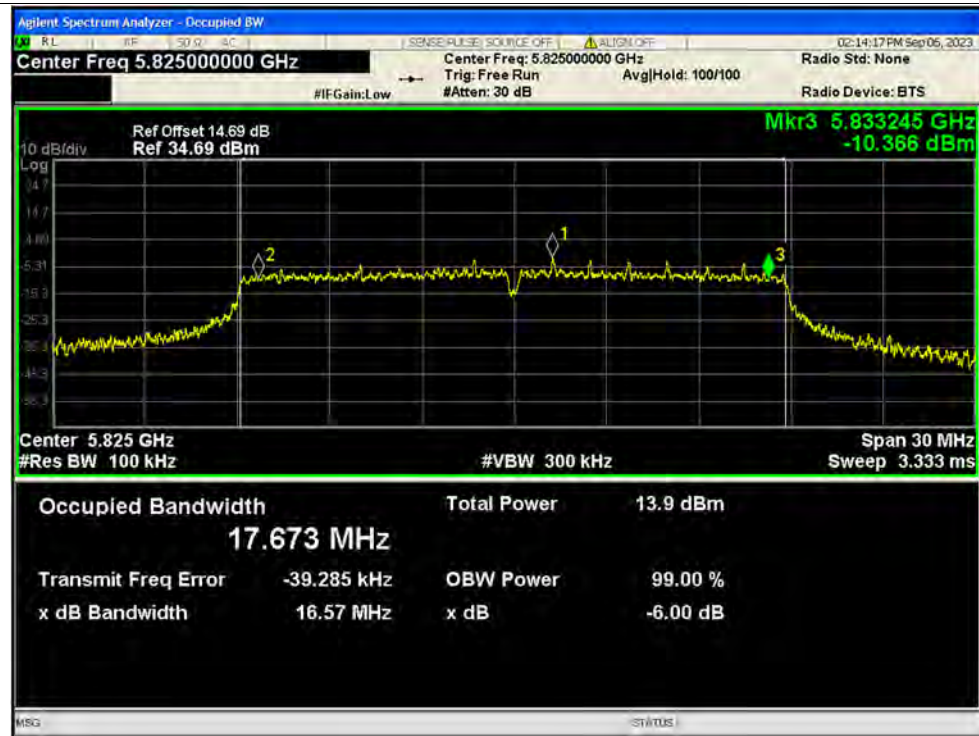
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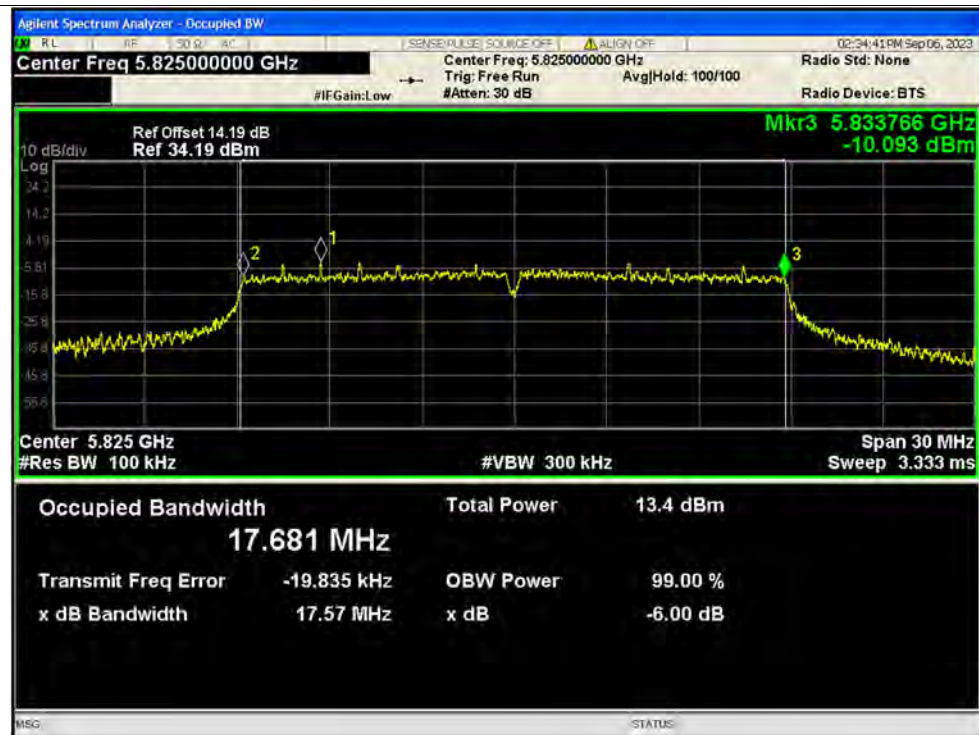
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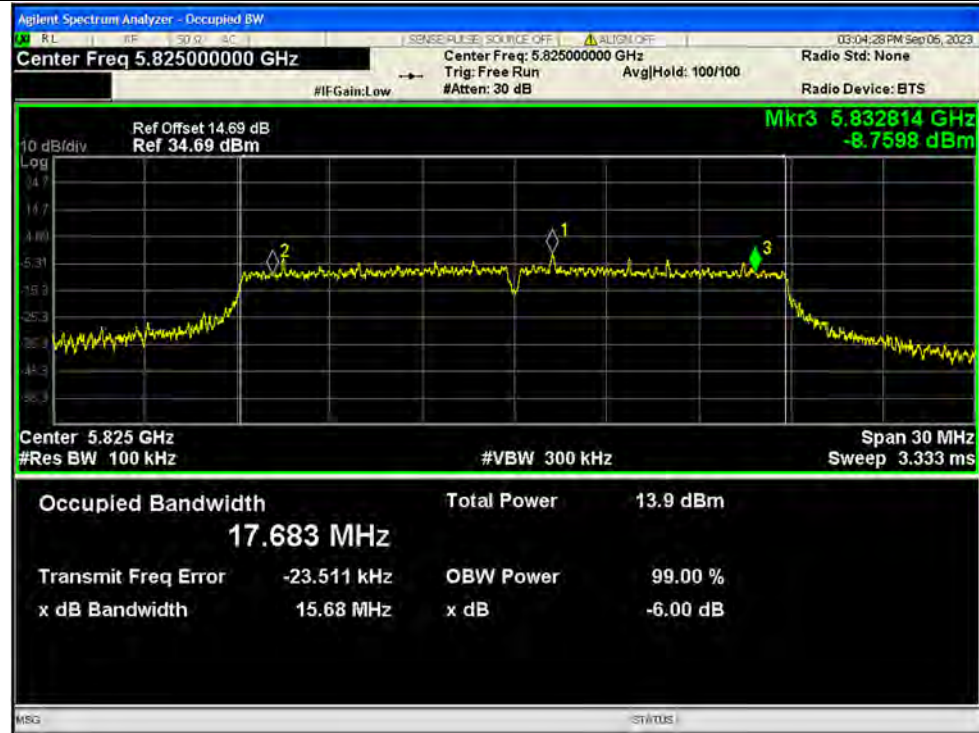
-6dB Bandwidth NVNT n20 5825MHz Ant1 SISO



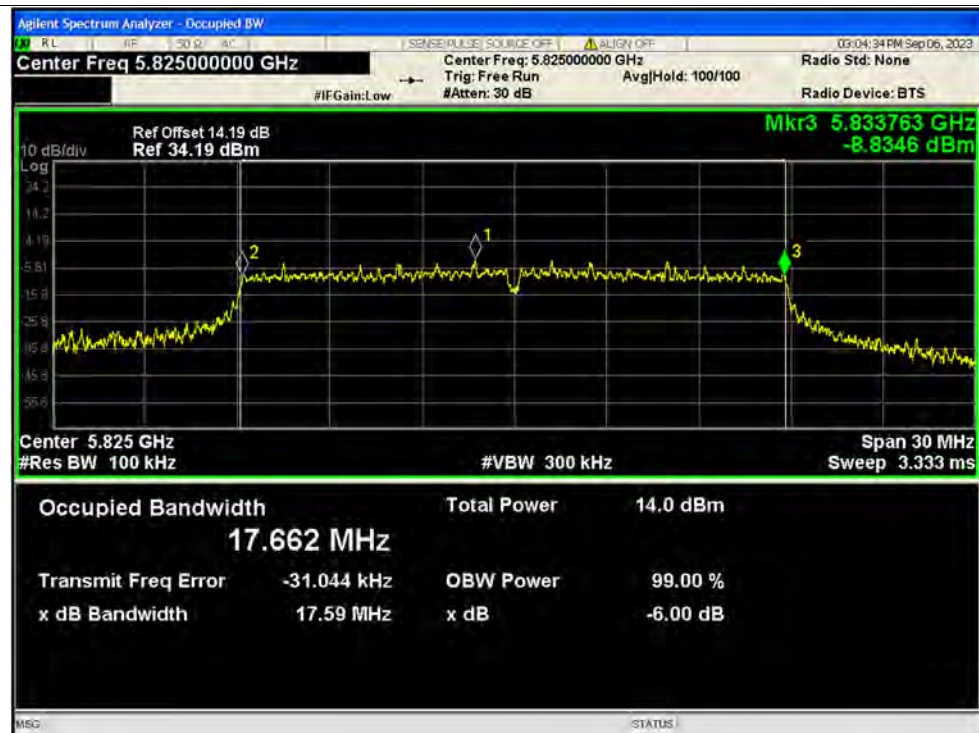
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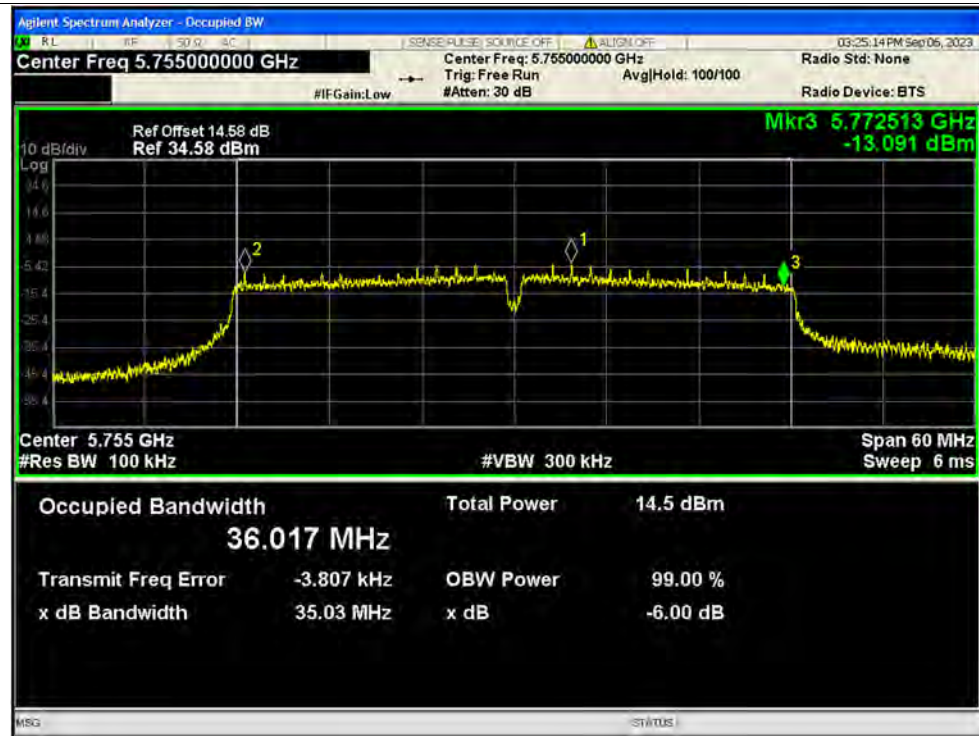
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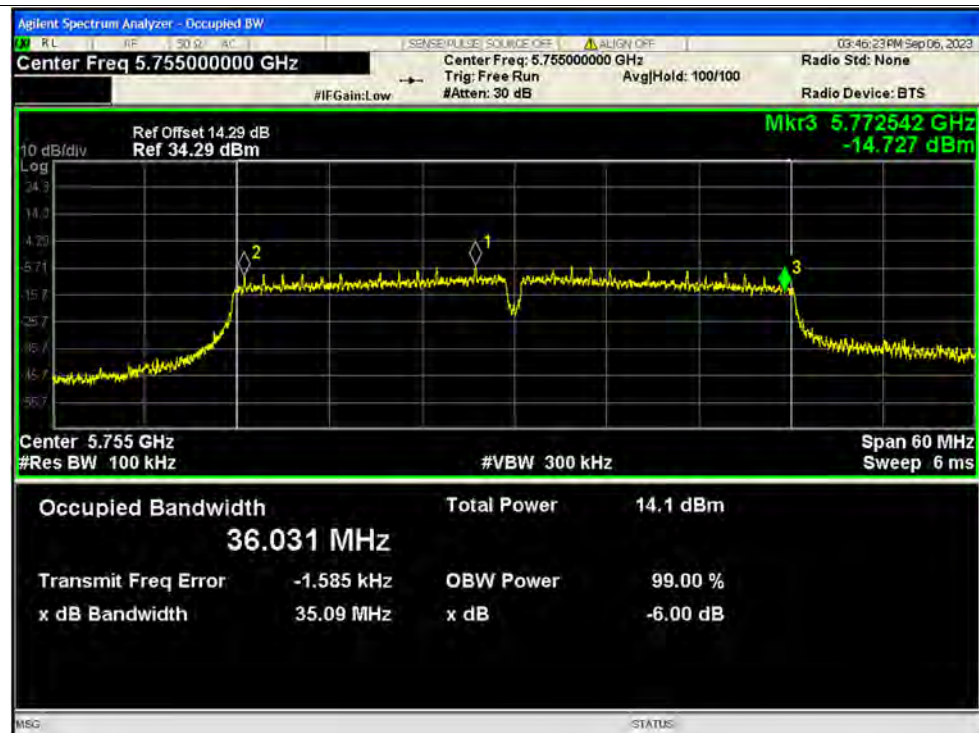
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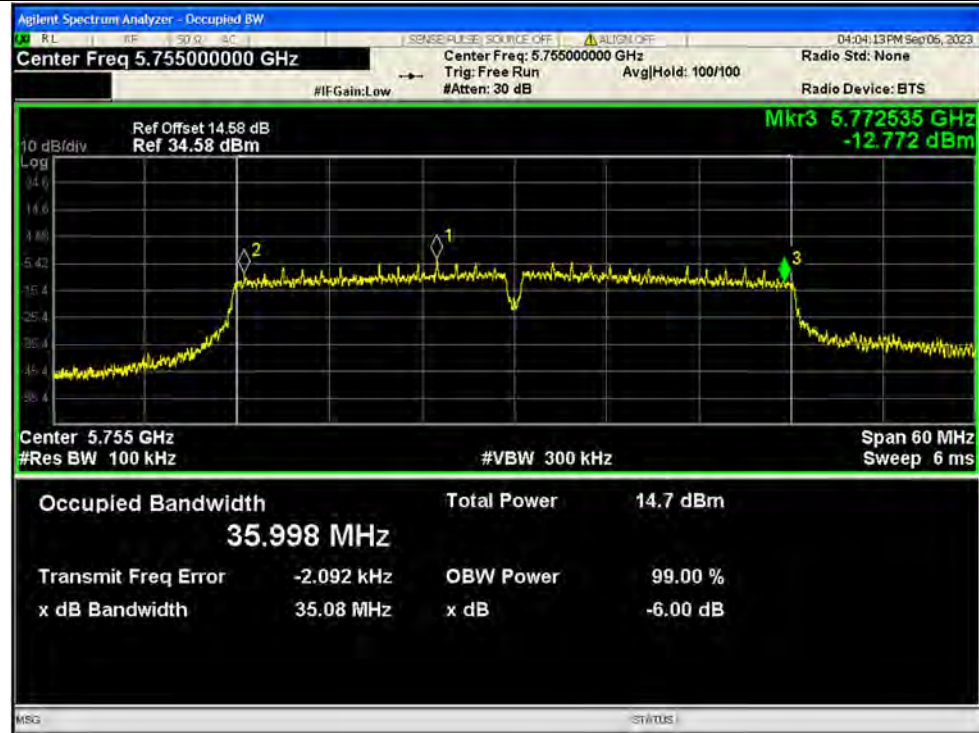
-6dB Bandwidth NVNT n40 5755MHz Ant1 SISO



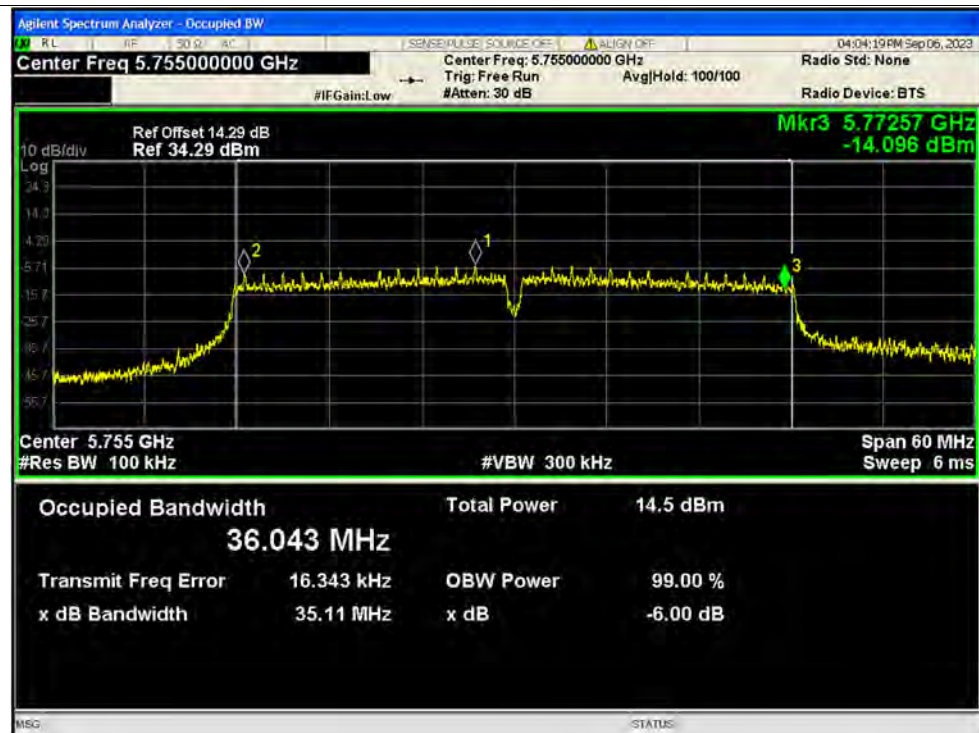
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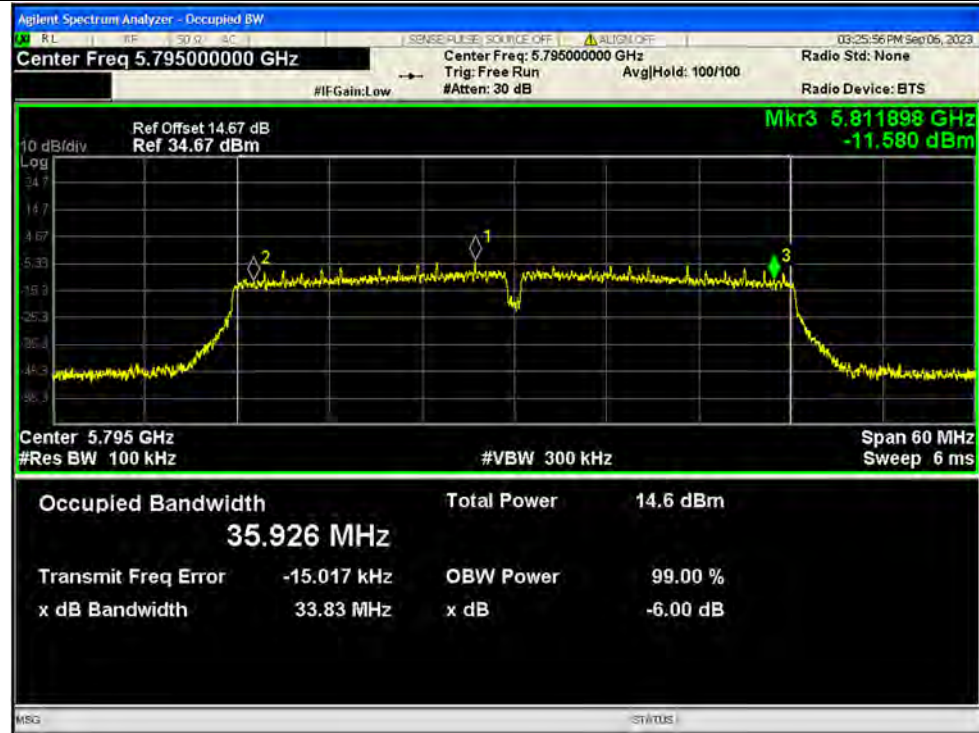
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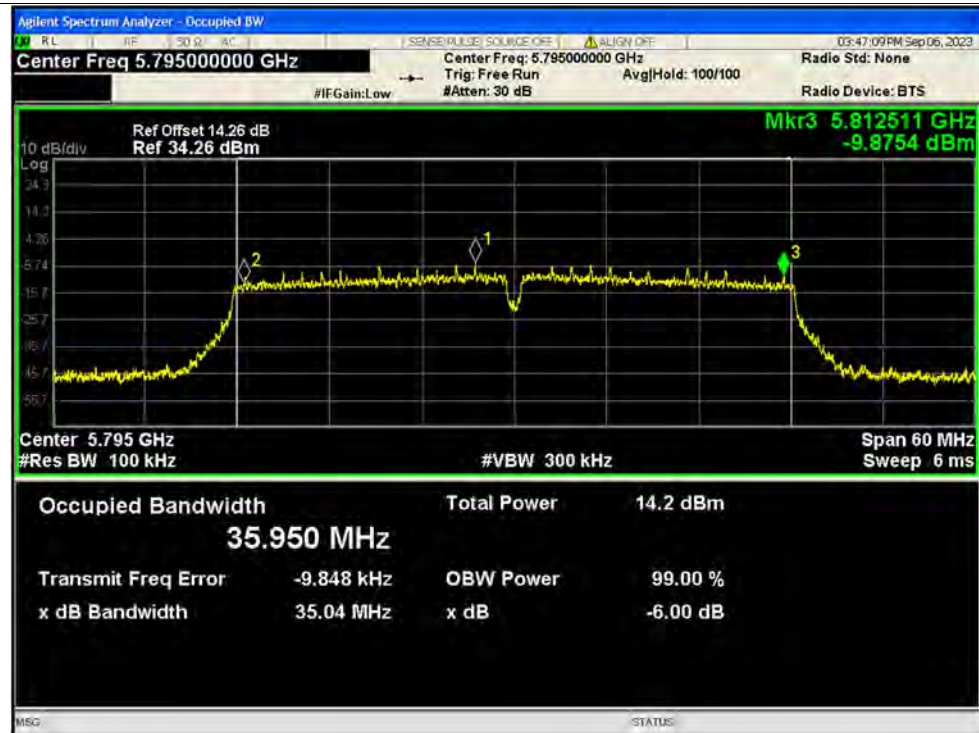
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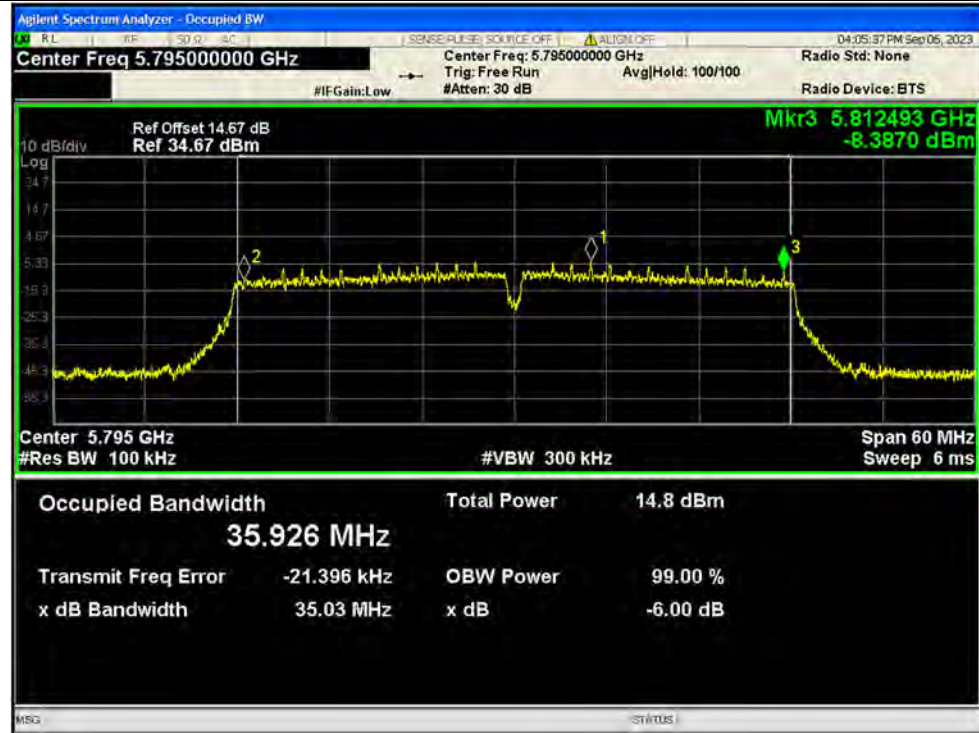
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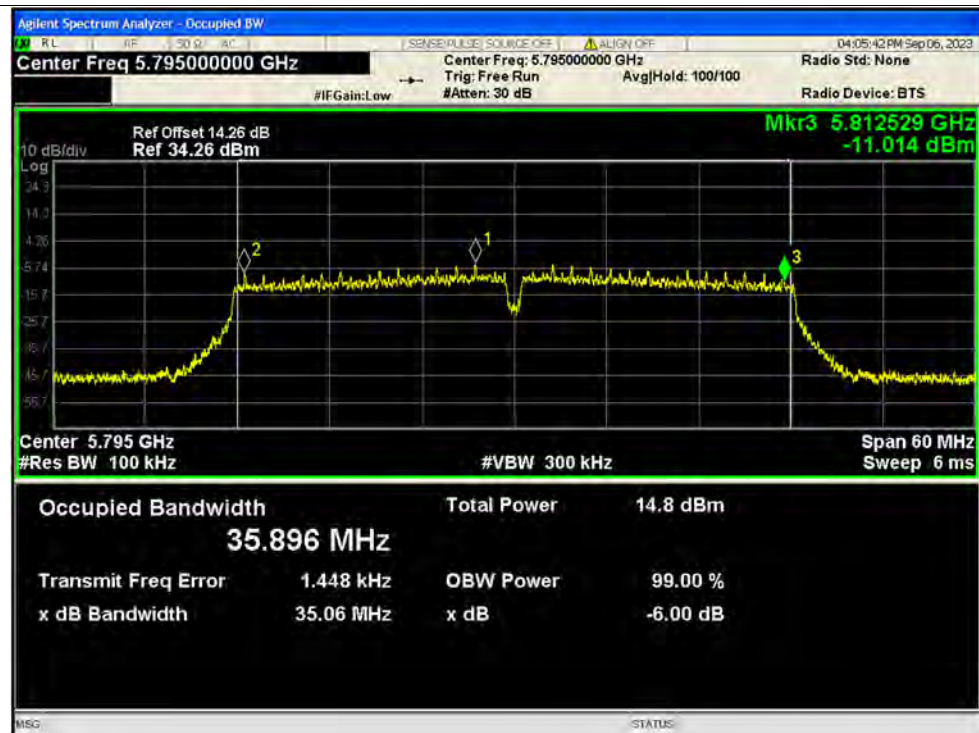
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-6dB Bandwidth NVNT n40 5795MHz Ant1 MIMO

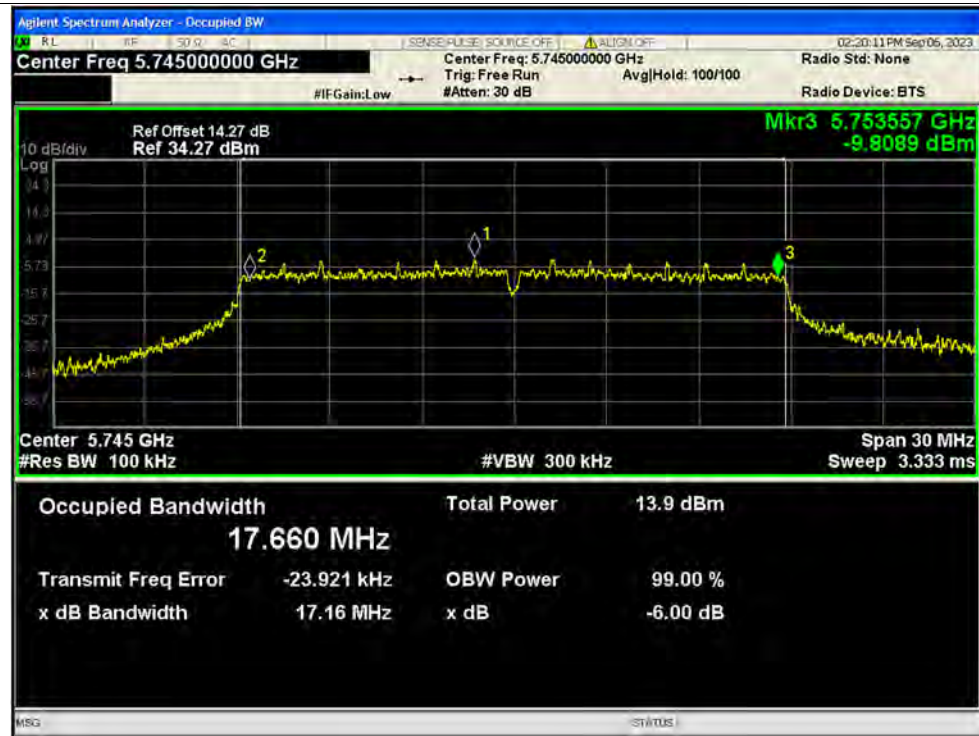


-6dB Bandwidth NVNT n40 5795MHz Ant2 MIMO

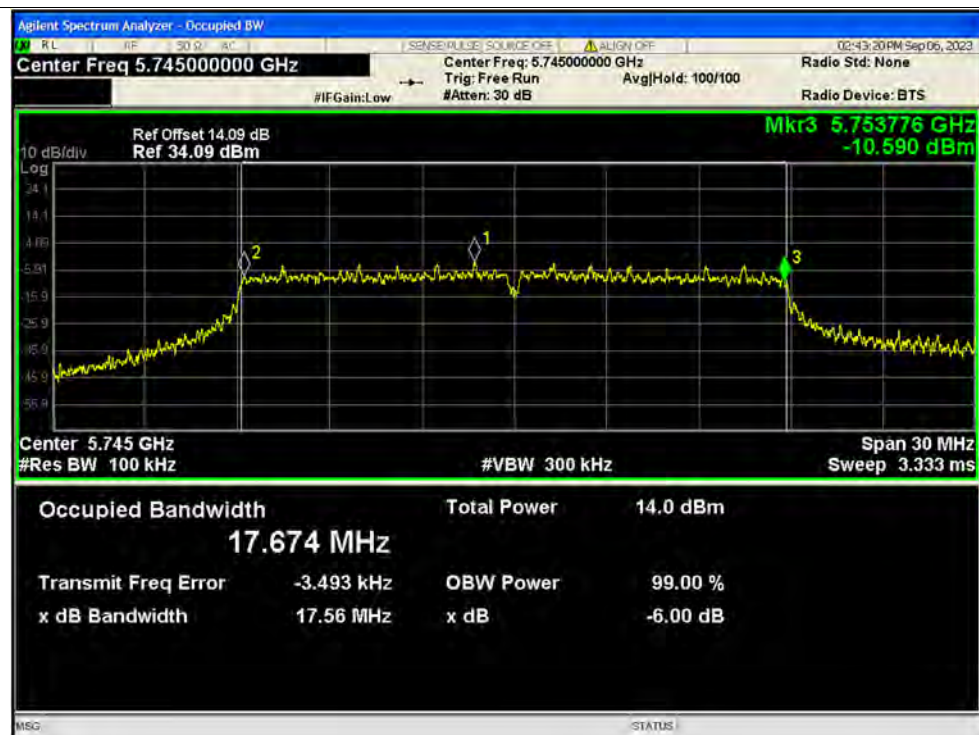




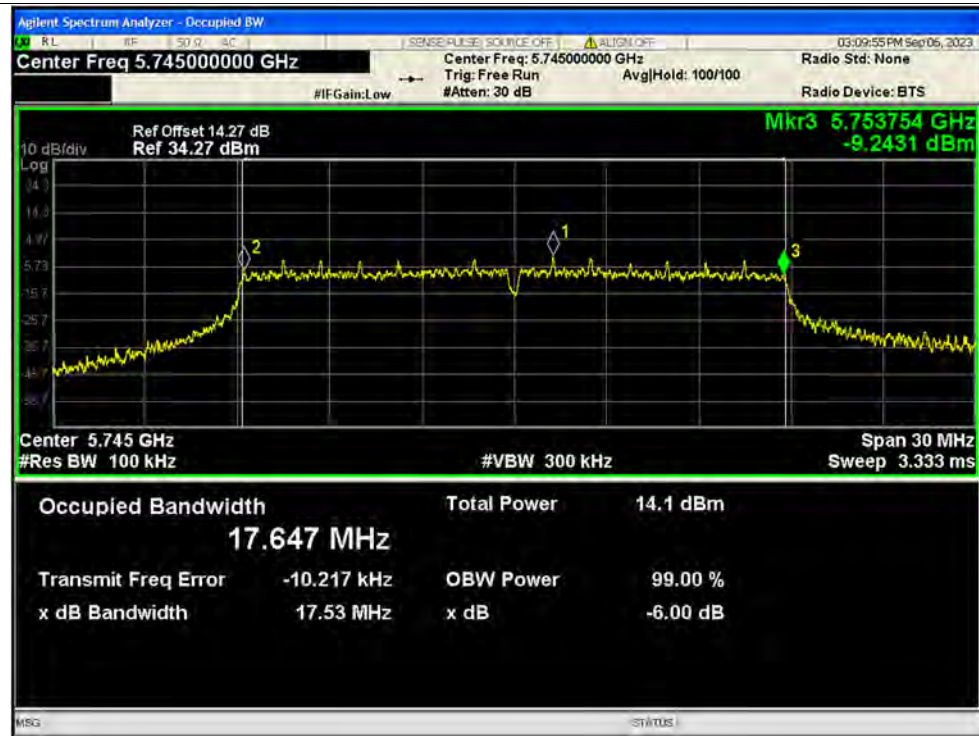
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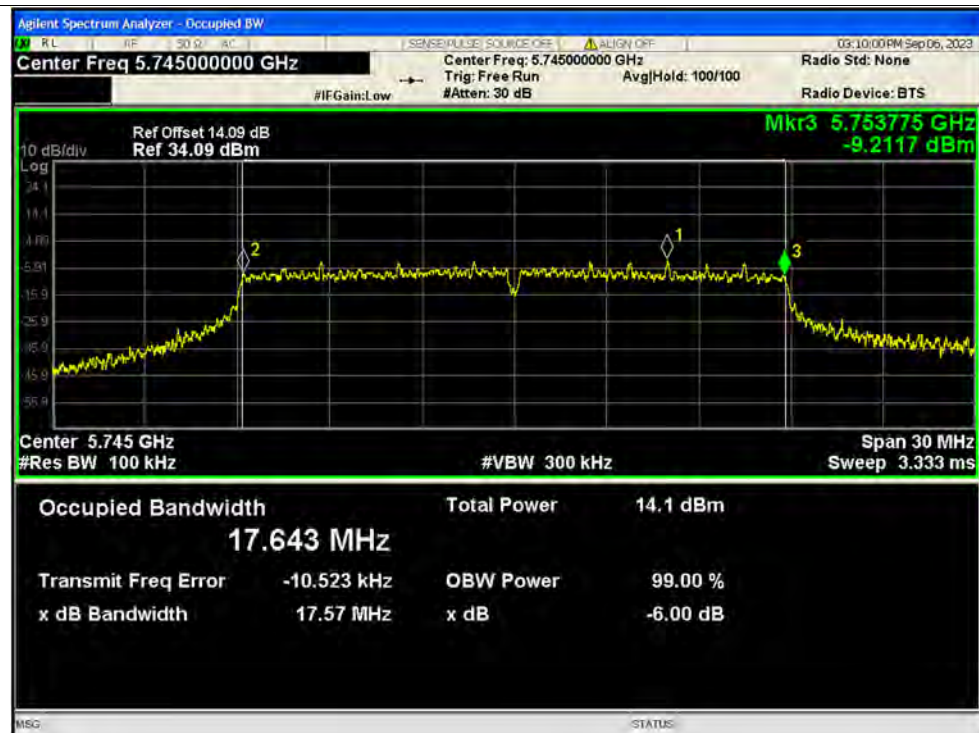
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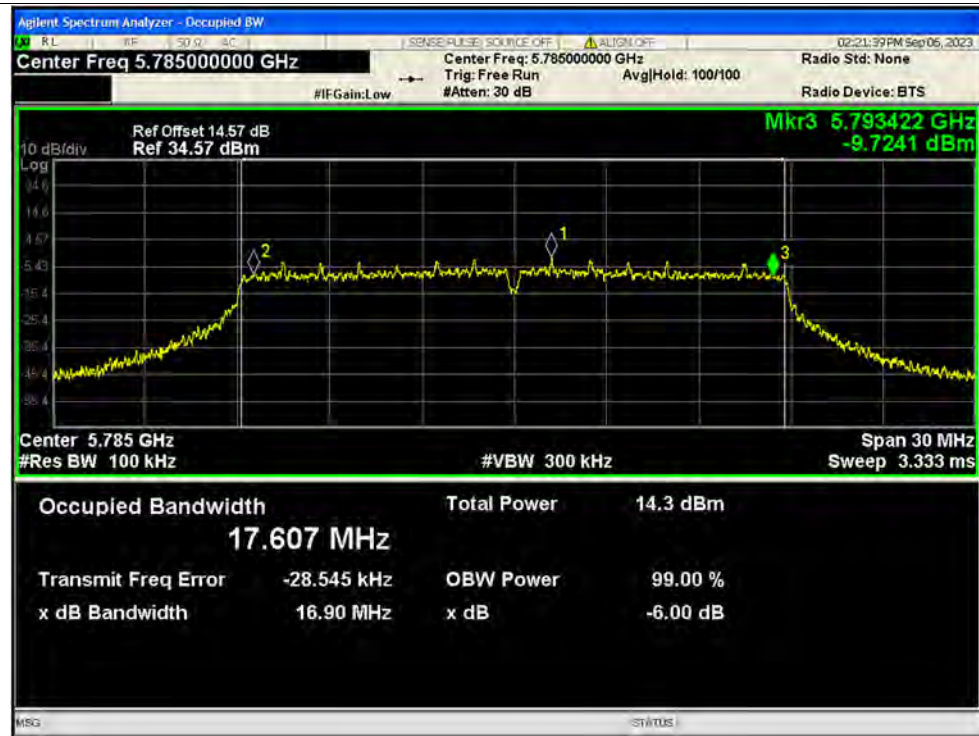
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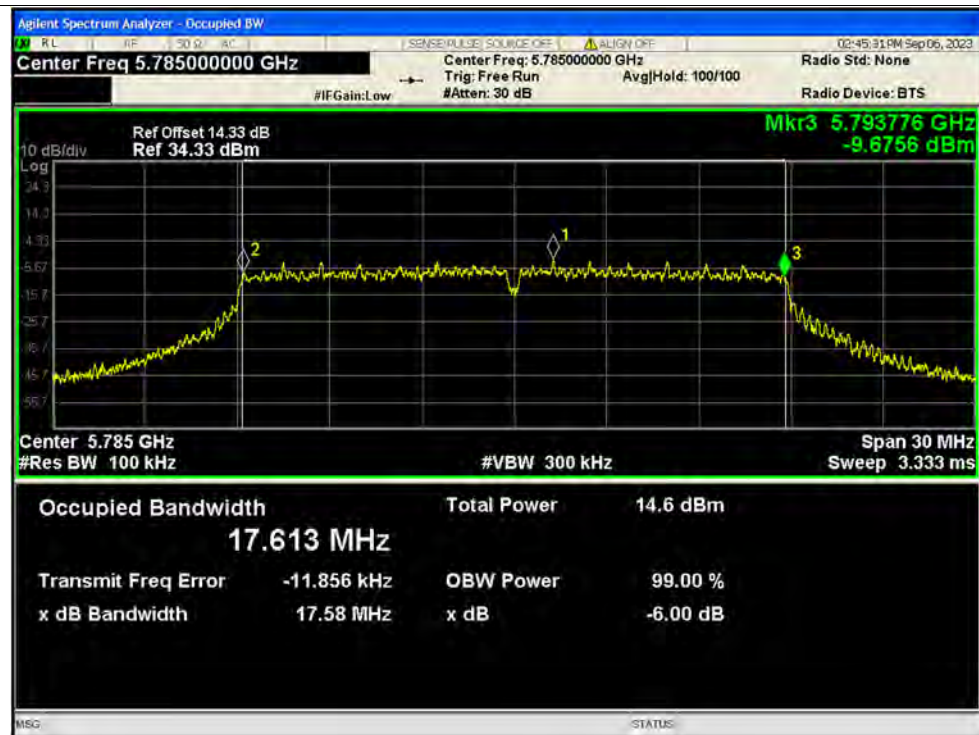
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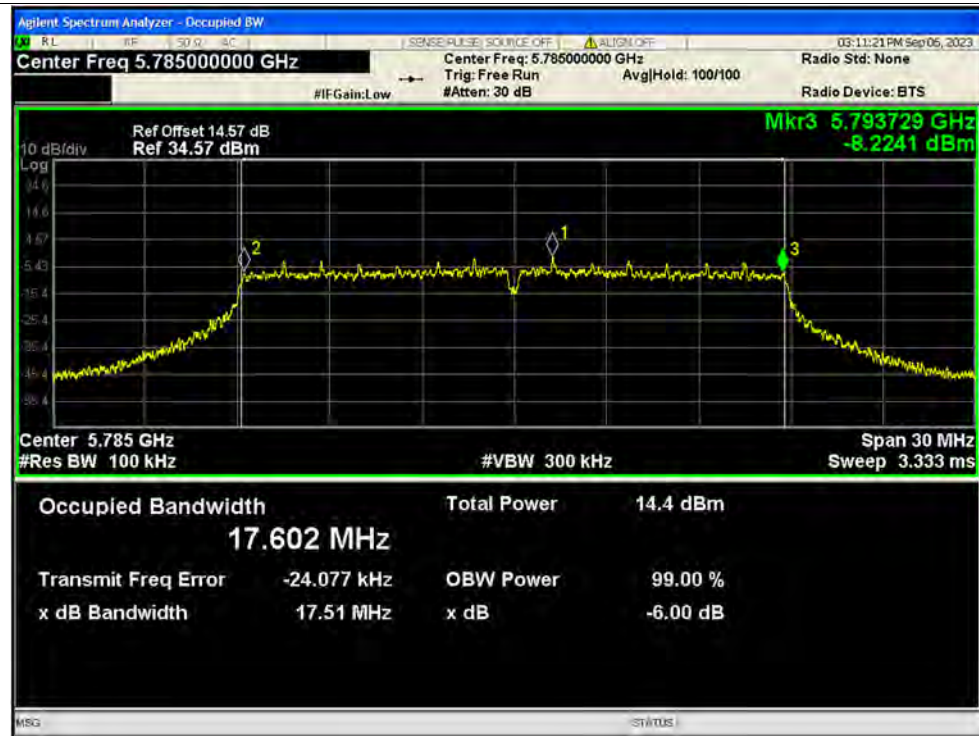
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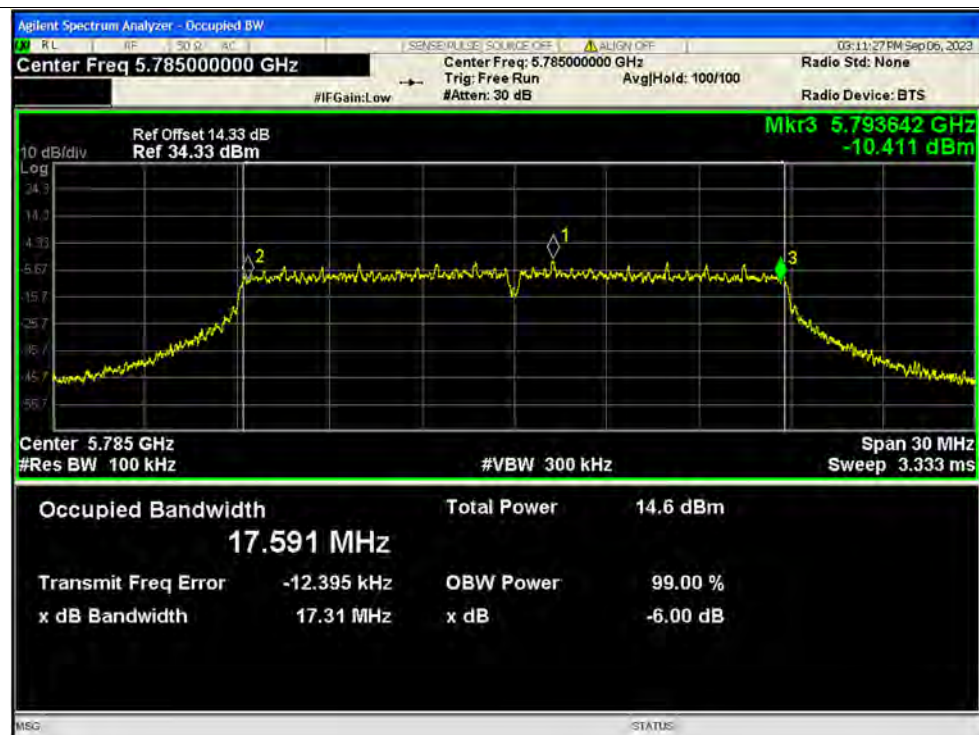
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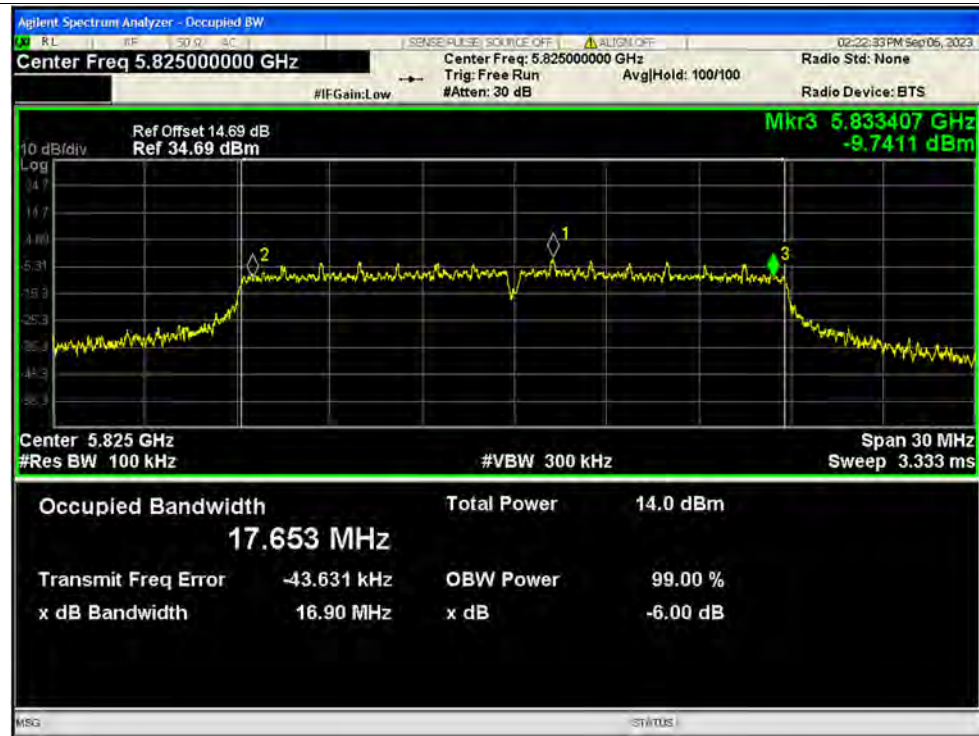
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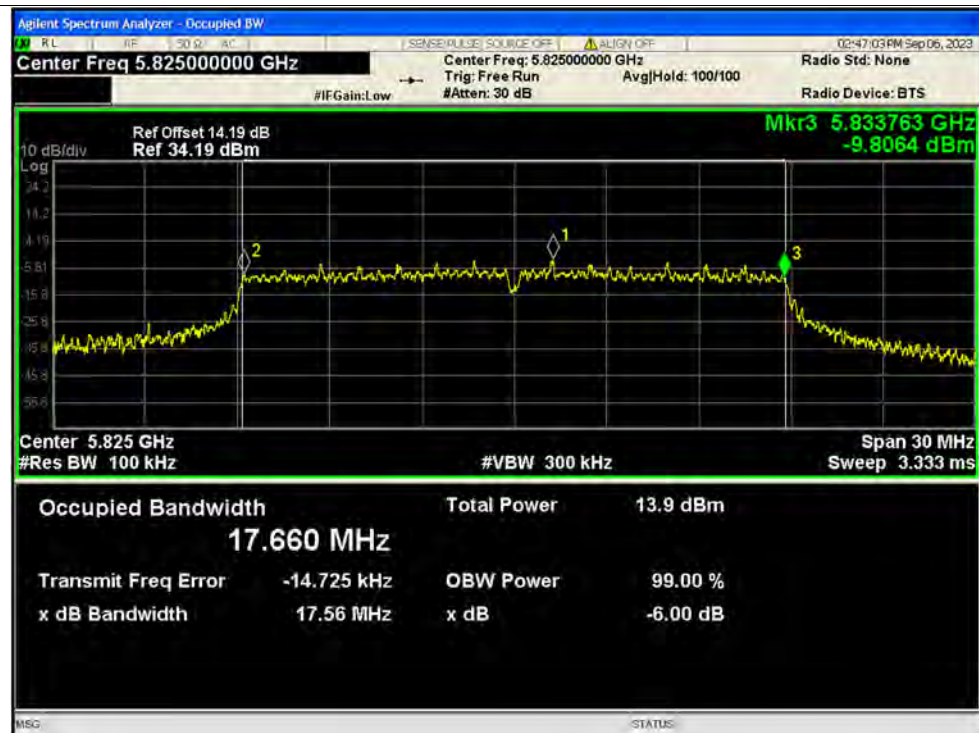
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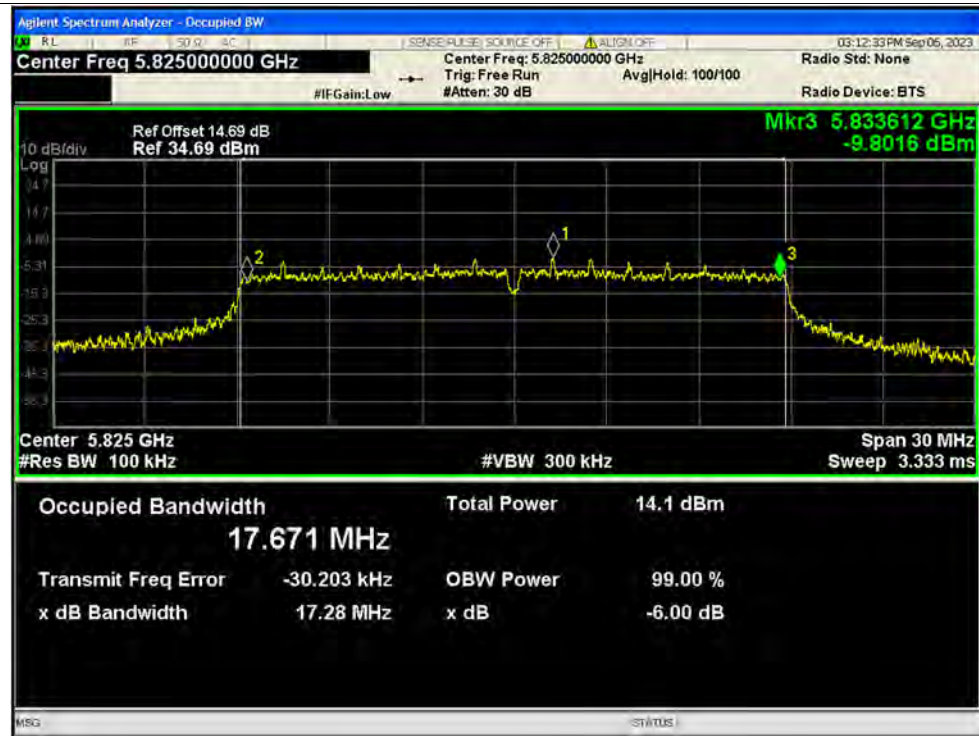
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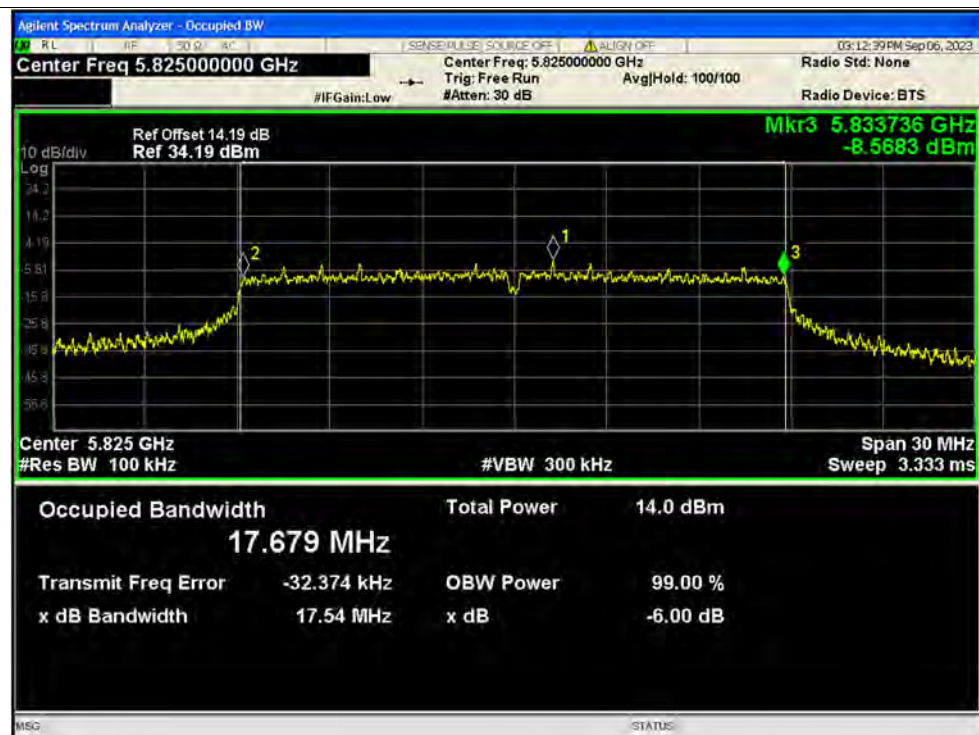
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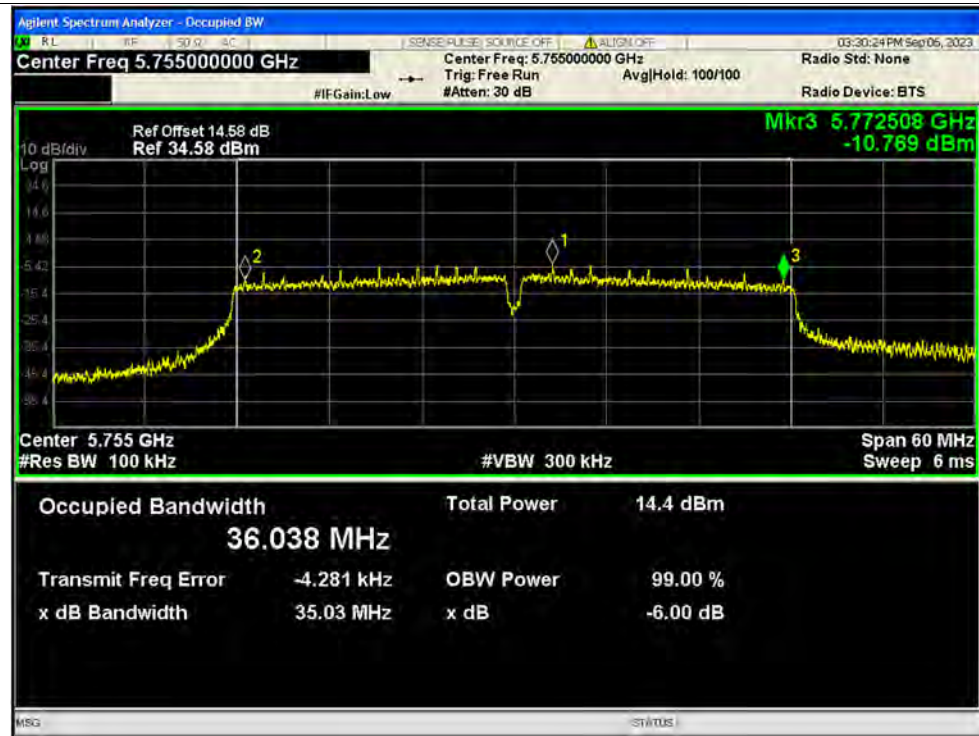
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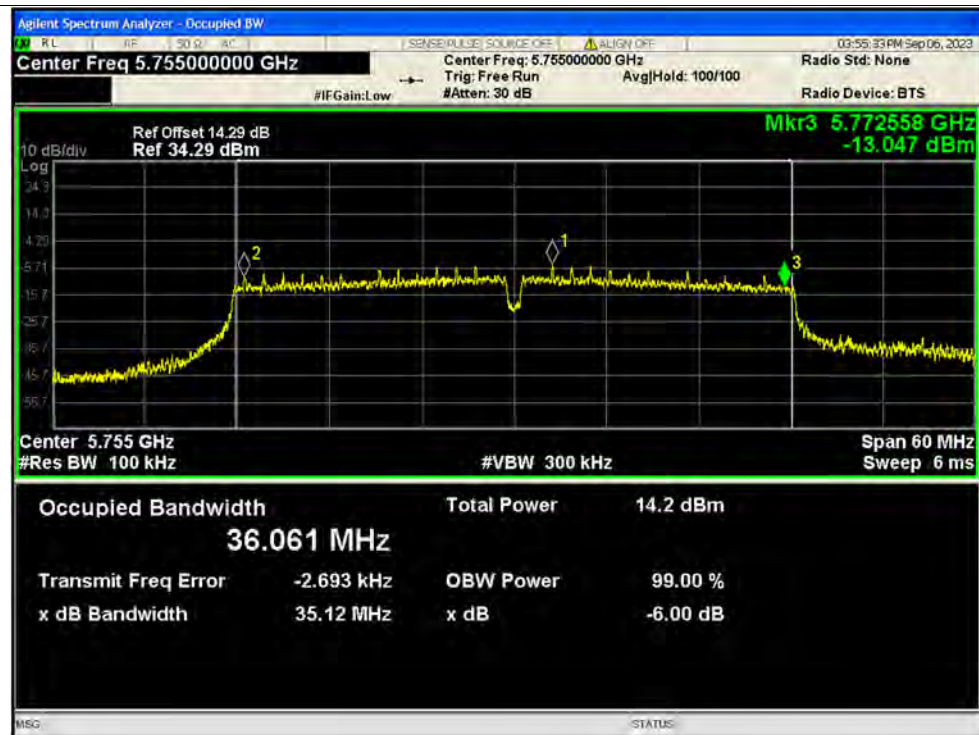
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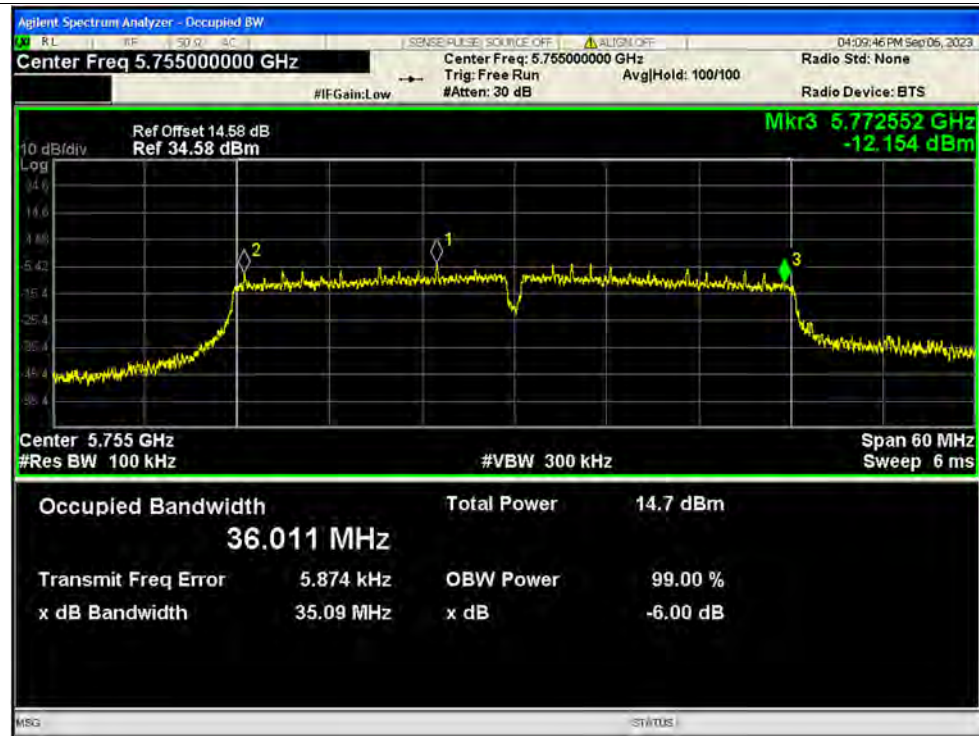
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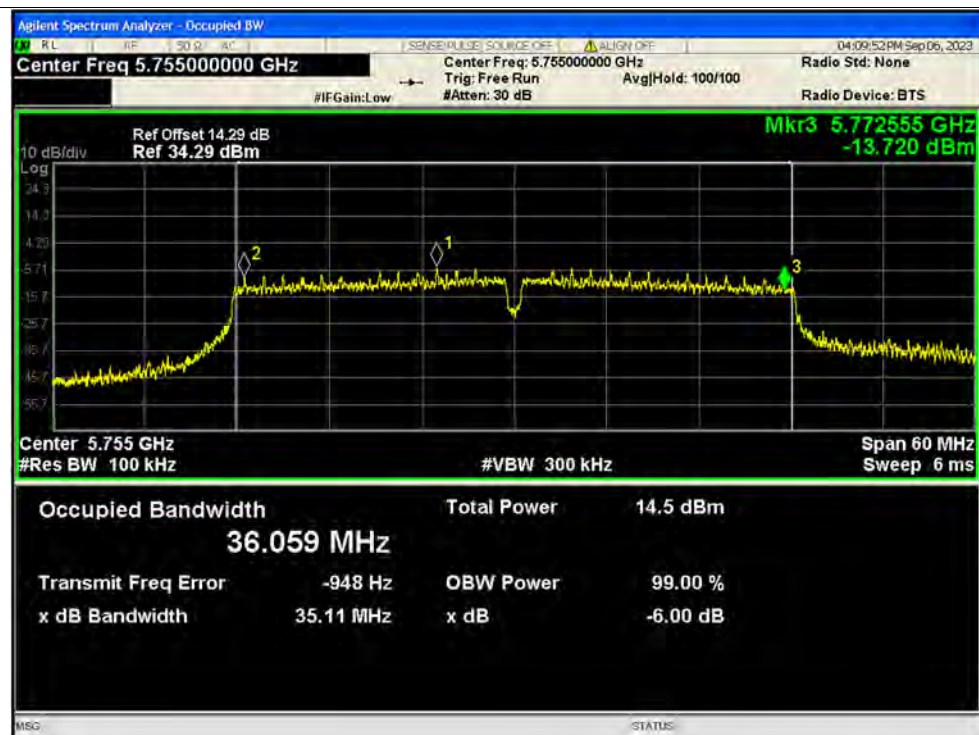
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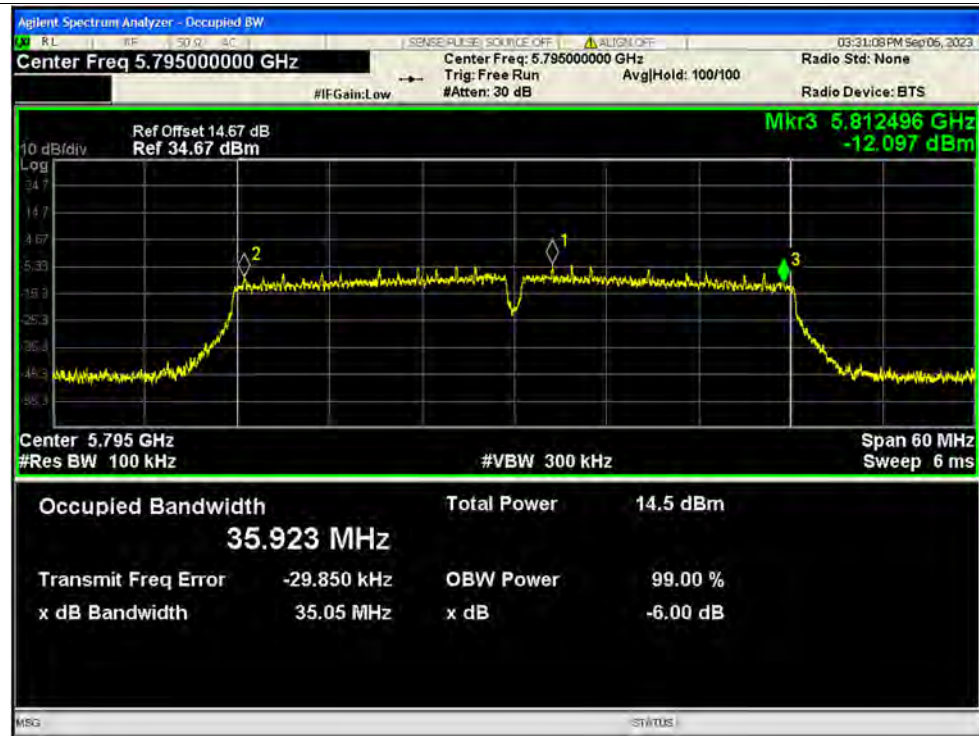
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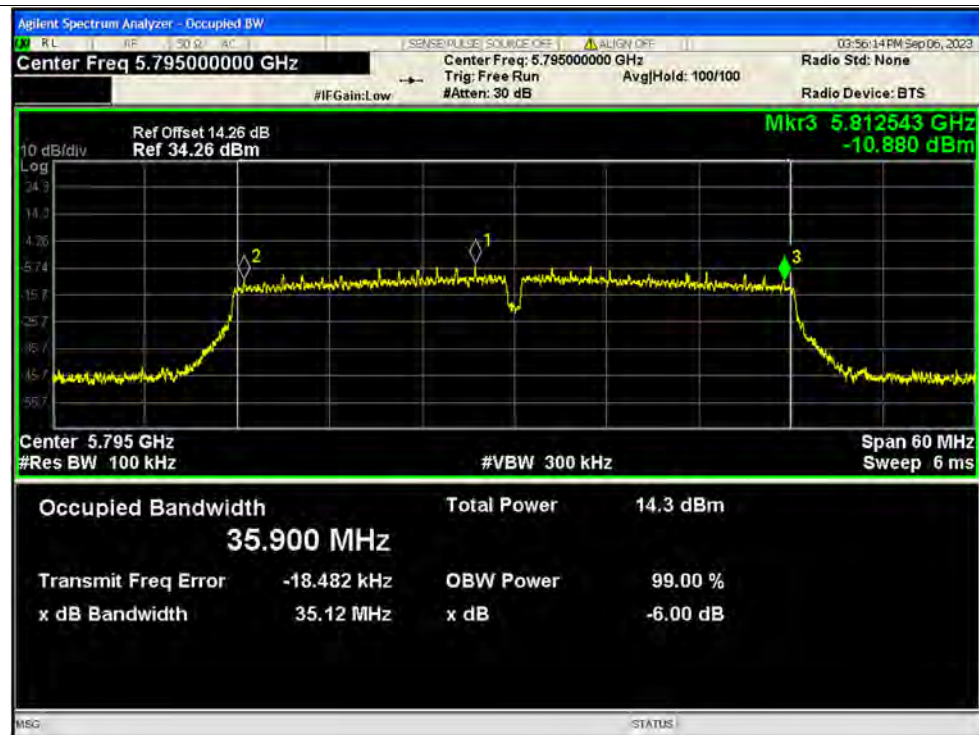
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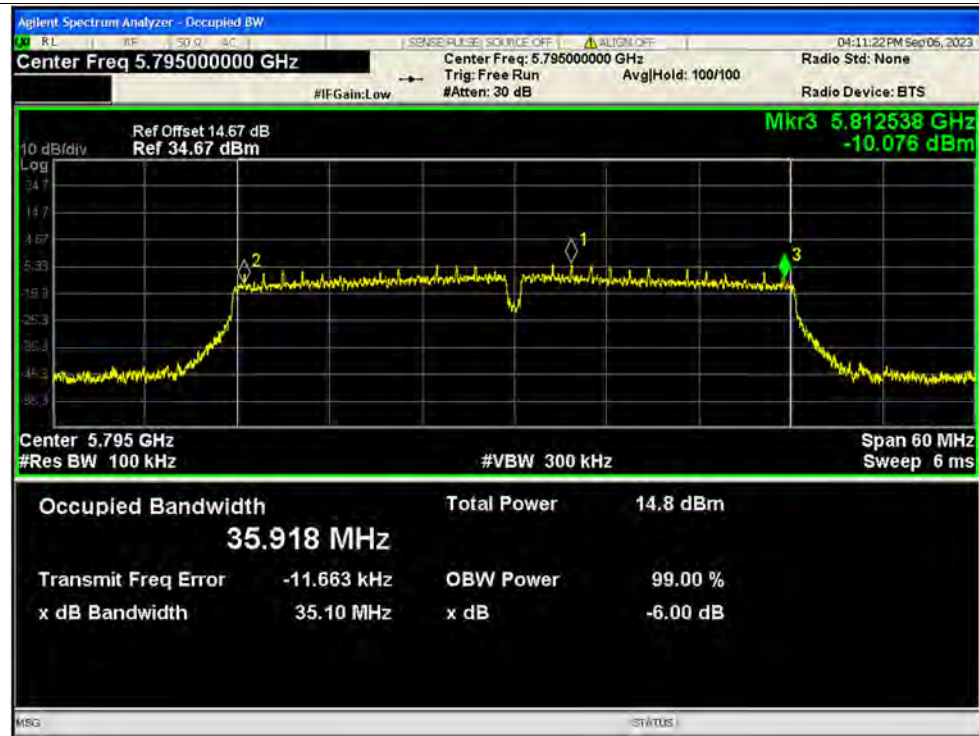
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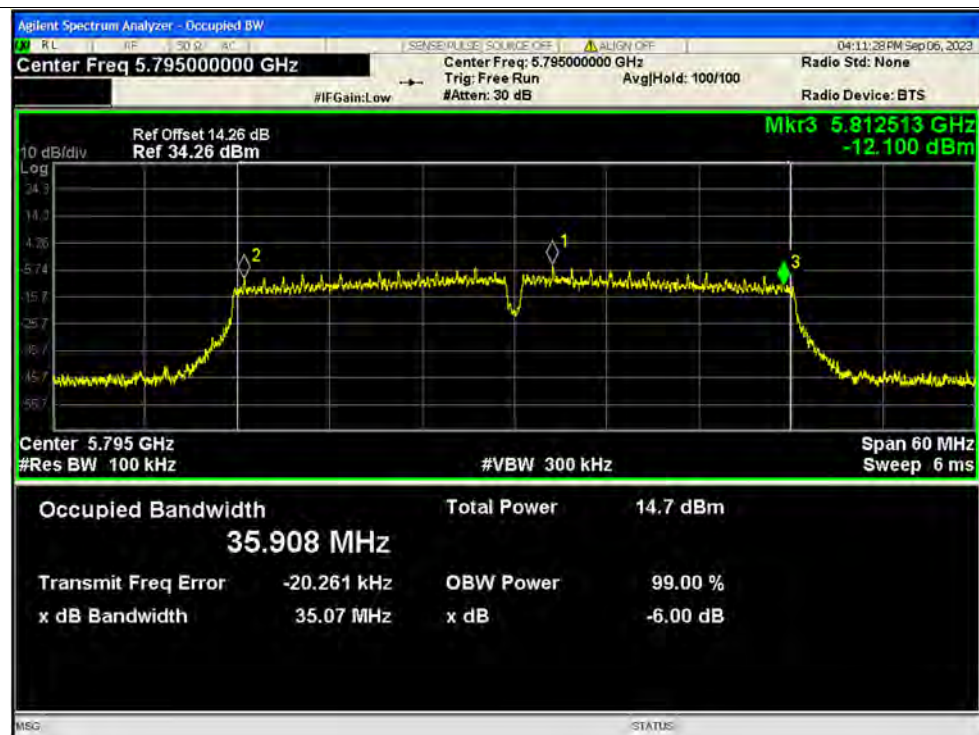
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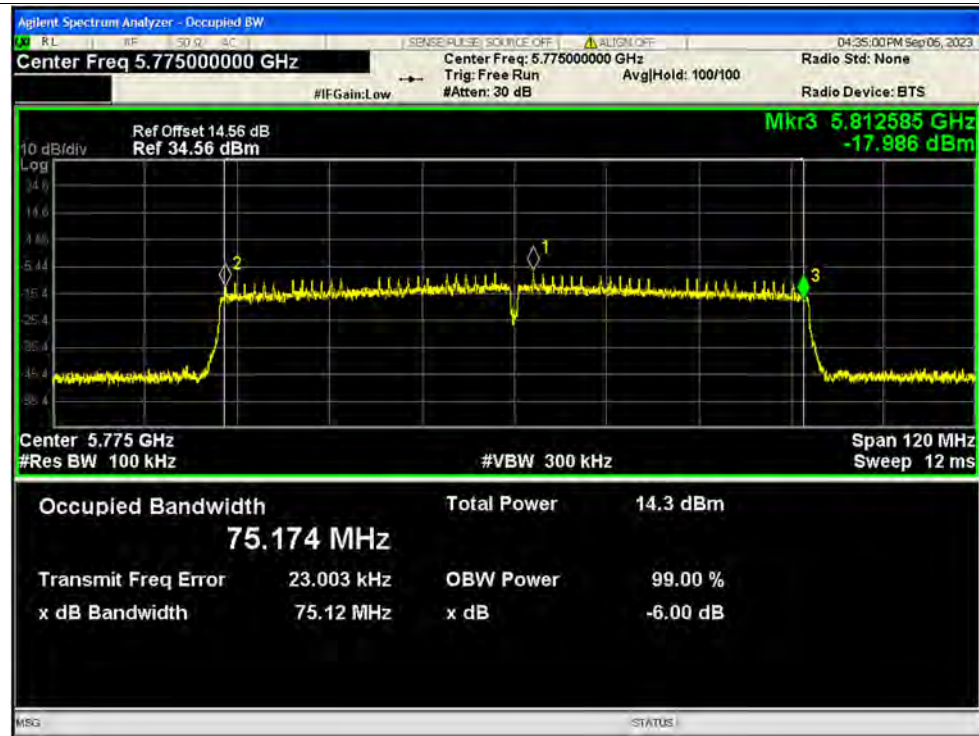
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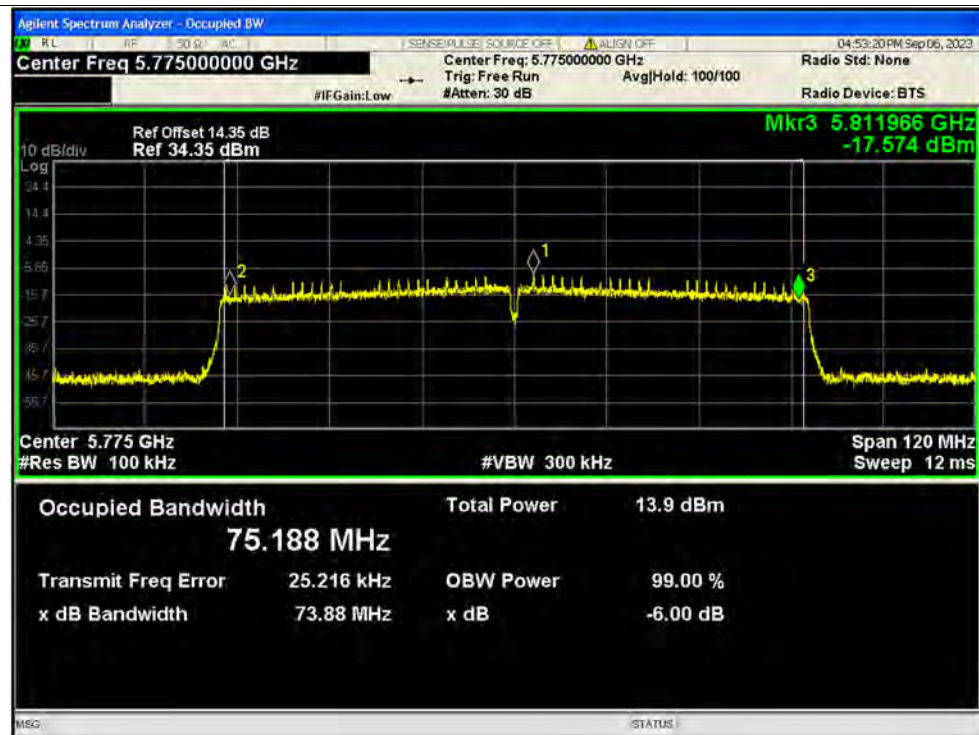
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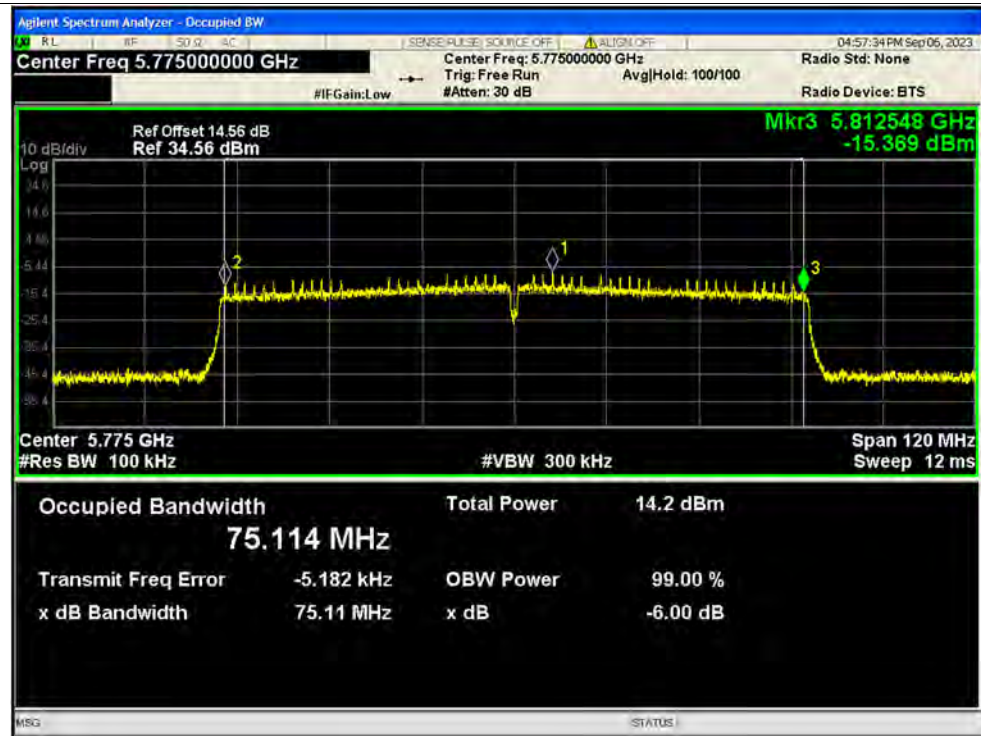
-6dB Bandwidth NVNT ac80 5775MHz Ant1 SISO



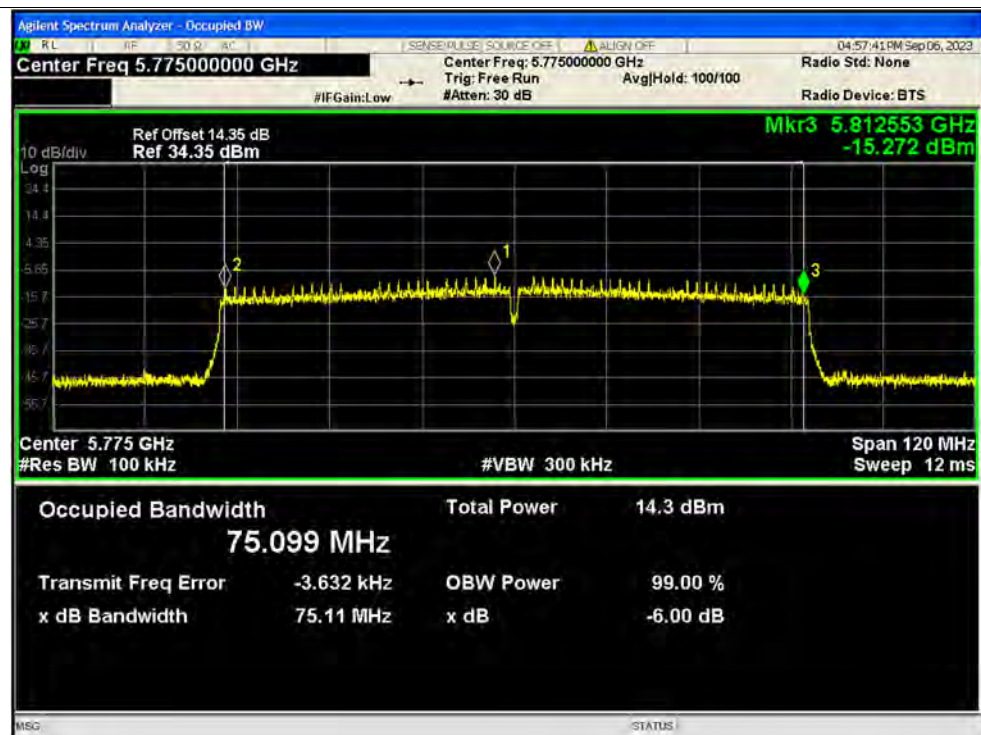
-6dB Bandwidth NVNT ac80 5775MHz Ant2 SISO



-6dB Bandwidth NVNT ac80 5775MHz Ant1 MIMO

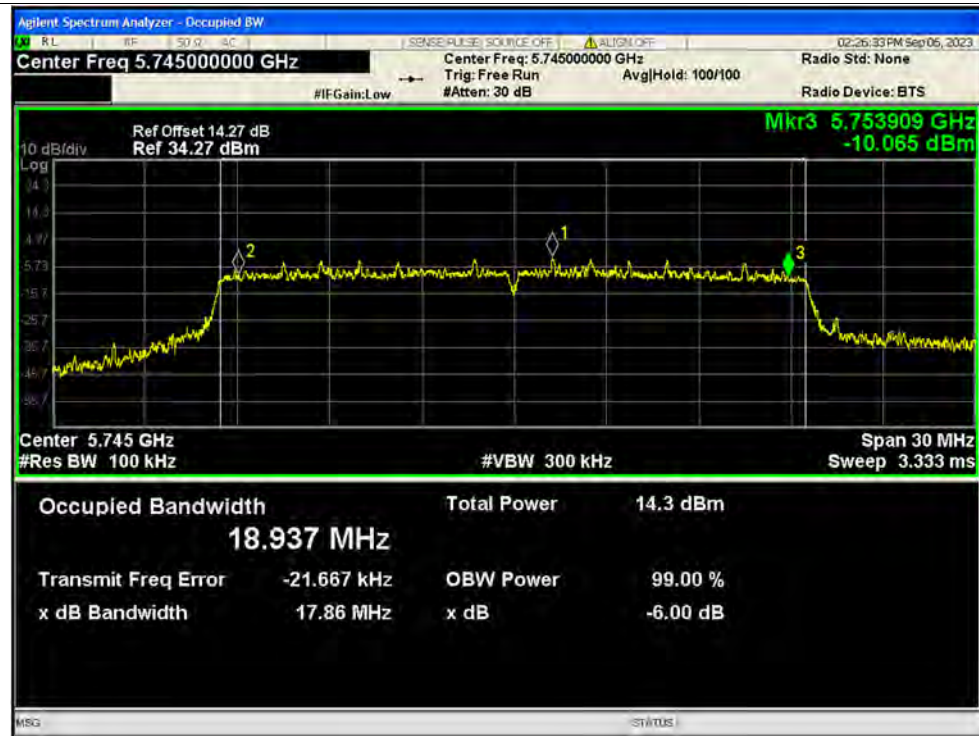


-6dB Bandwidth NVNT ac80 5775MHz Ant2 MIMO

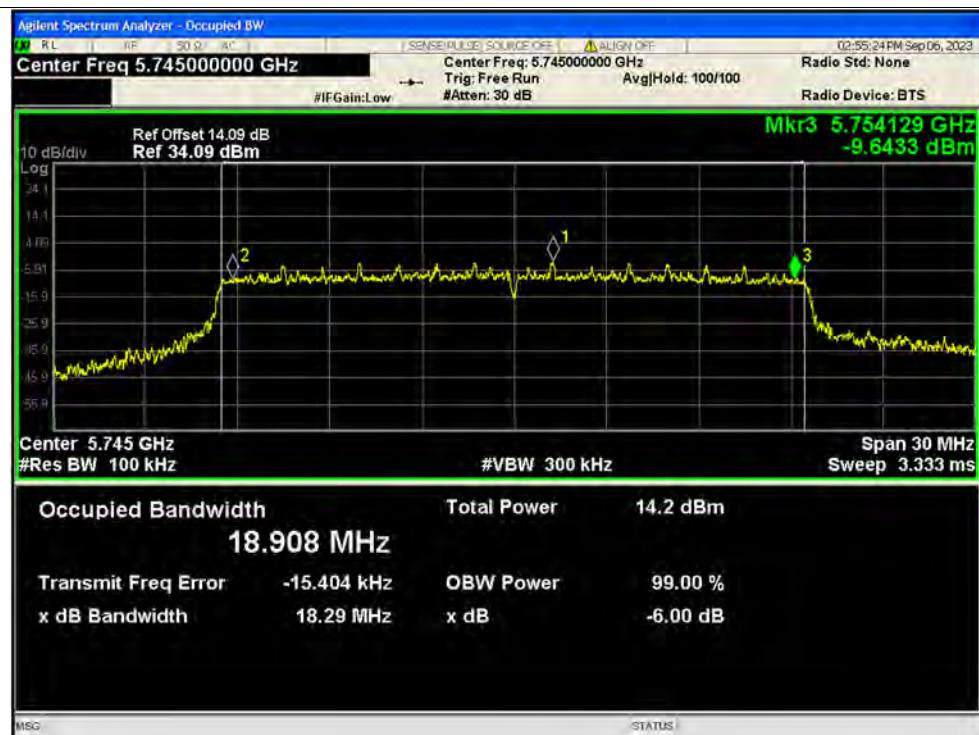




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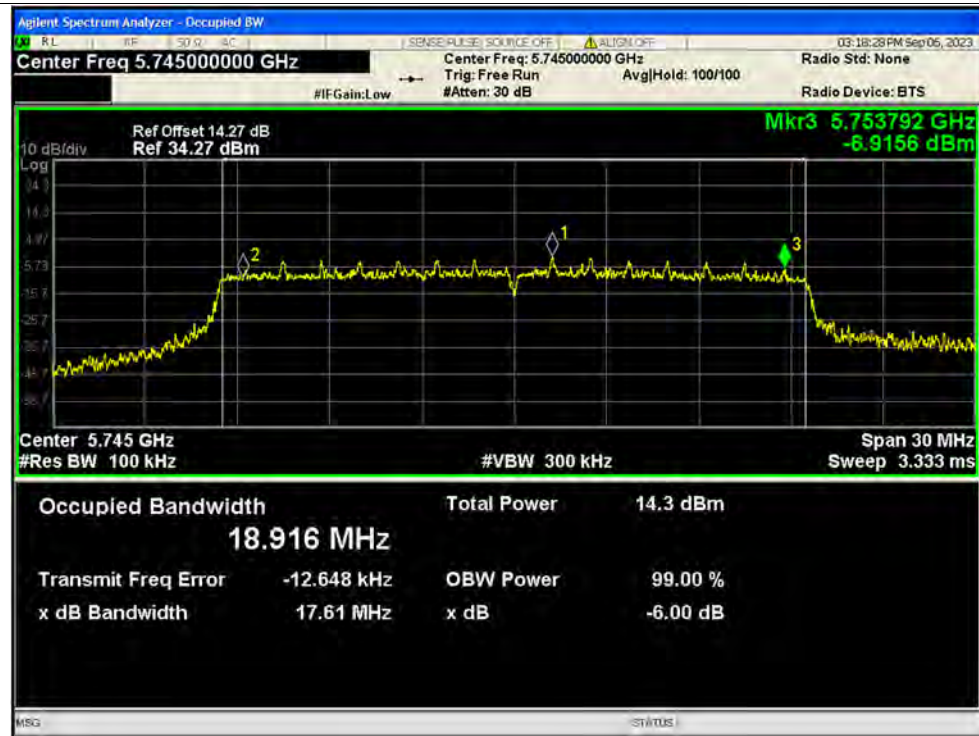


-6dB Bandwidth NVNT ax20 5745MHz Ant2 SISO

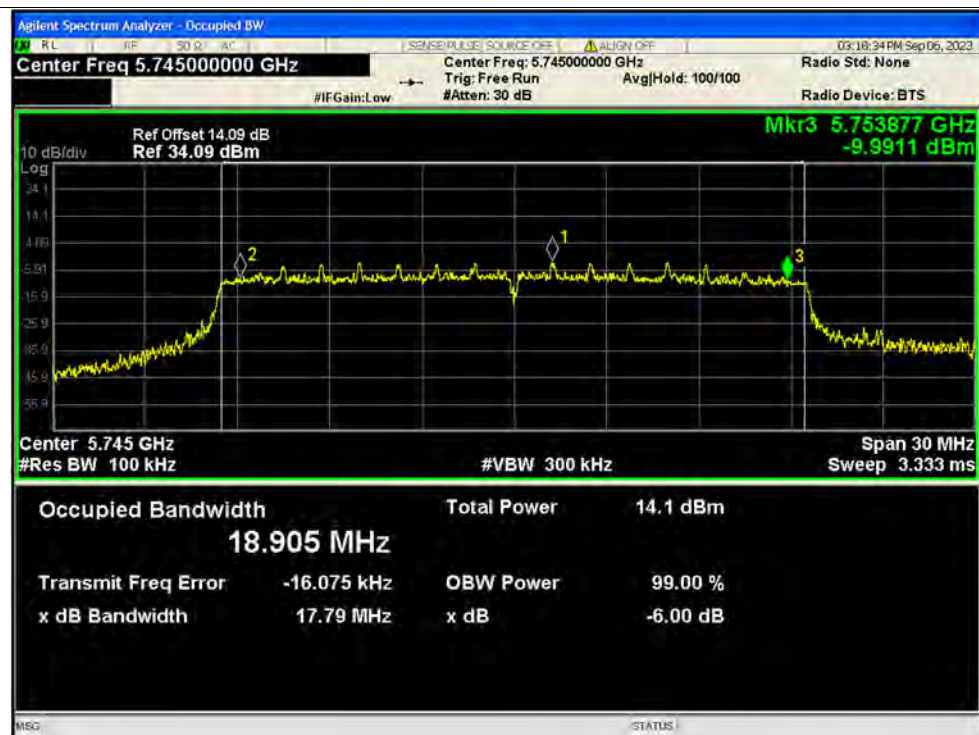




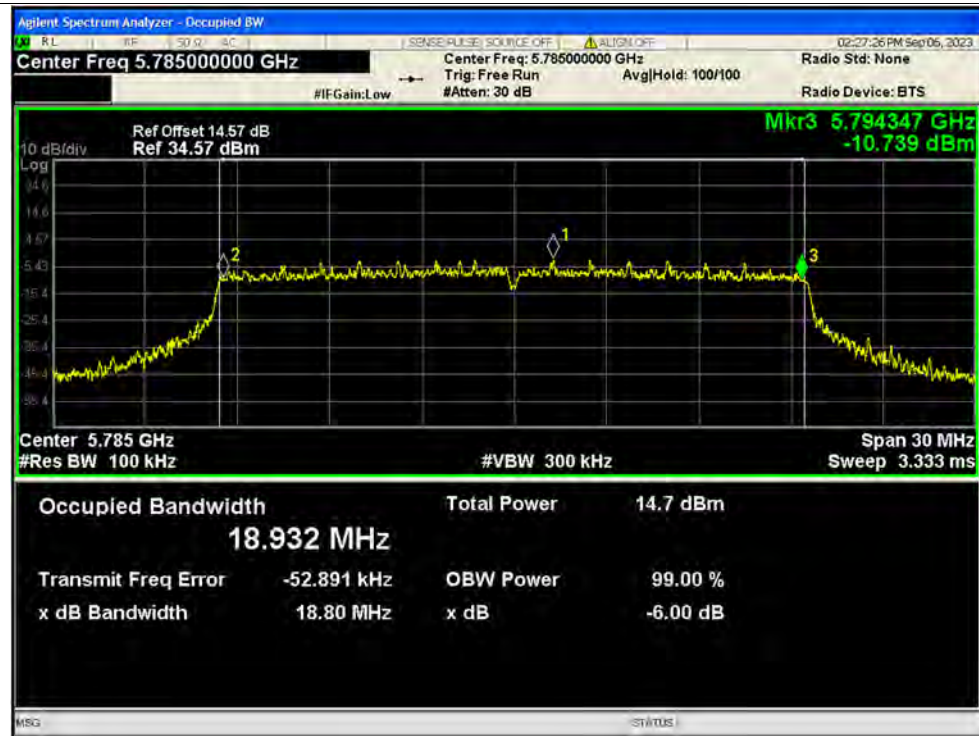
-6dB Bandwidth NVNT ax20 5745MHz Ant1 MIMO



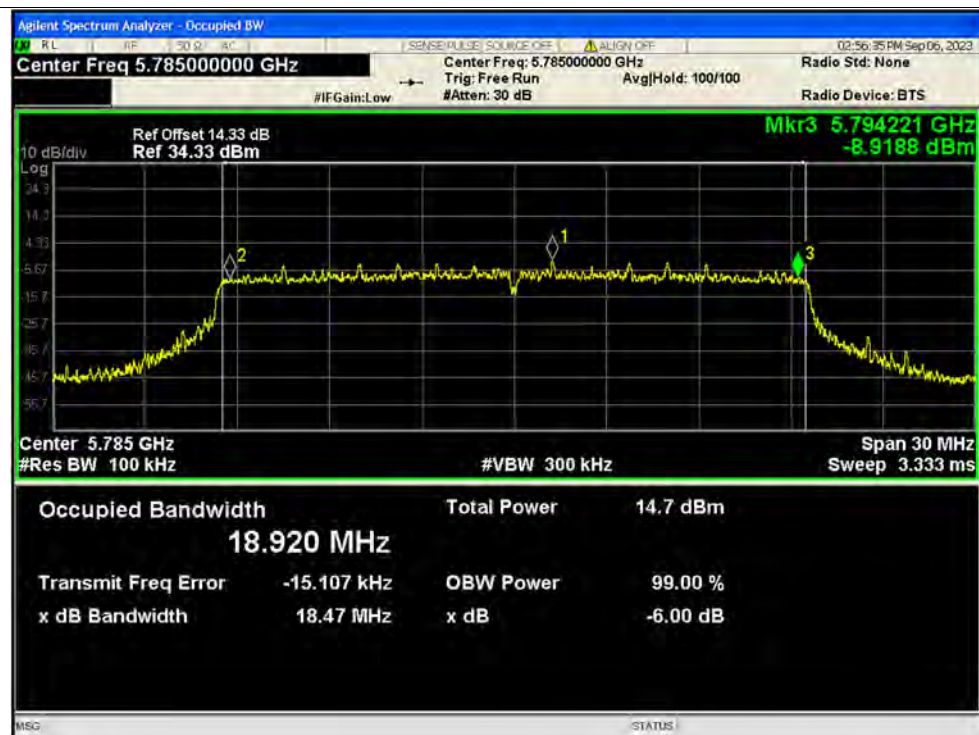
-6dB Bandwidth NVNT ax20 5745MHz Ant2 MIMO



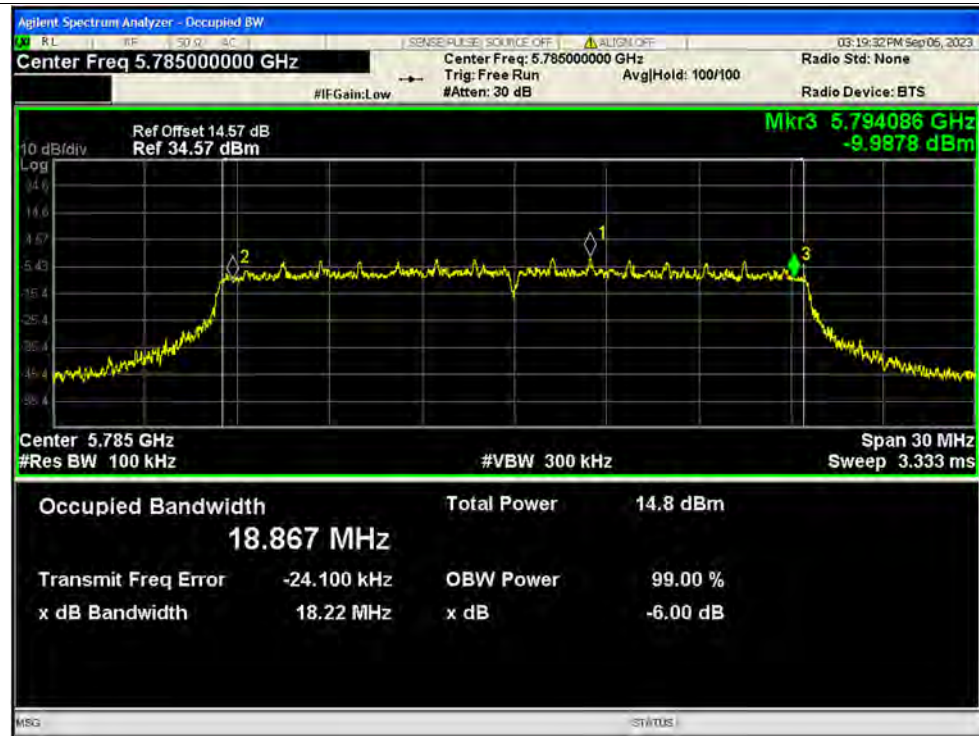
-6dB Bandwidth NVNT ax20 5785MHz Ant1 SISO



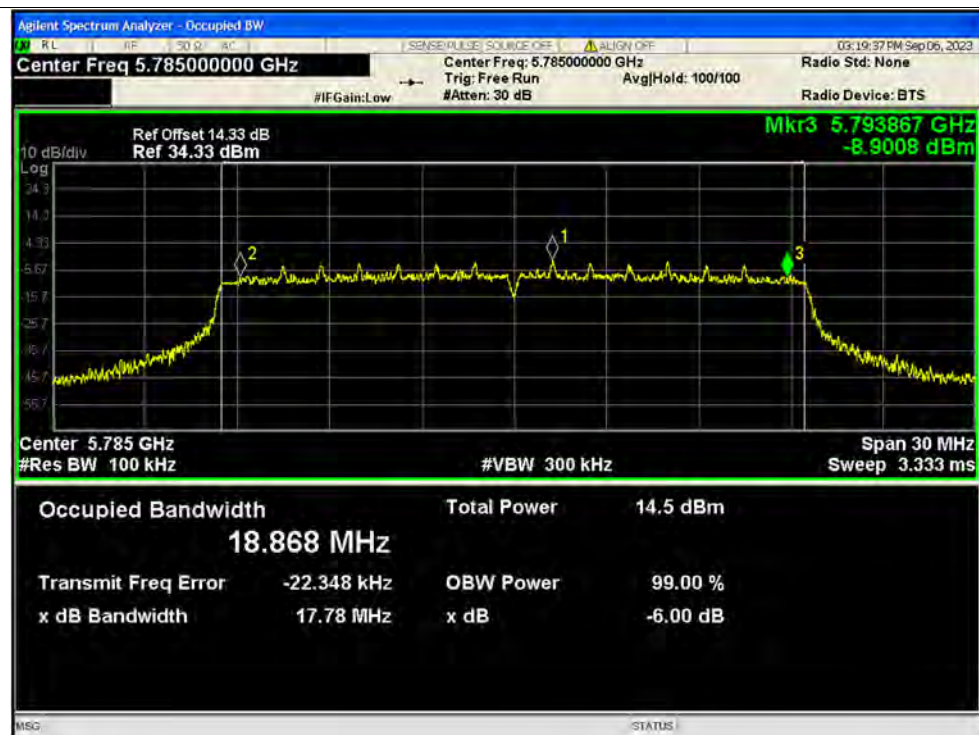
-6dB Bandwidth NVNT ax20 5785MHz Ant2 SISO



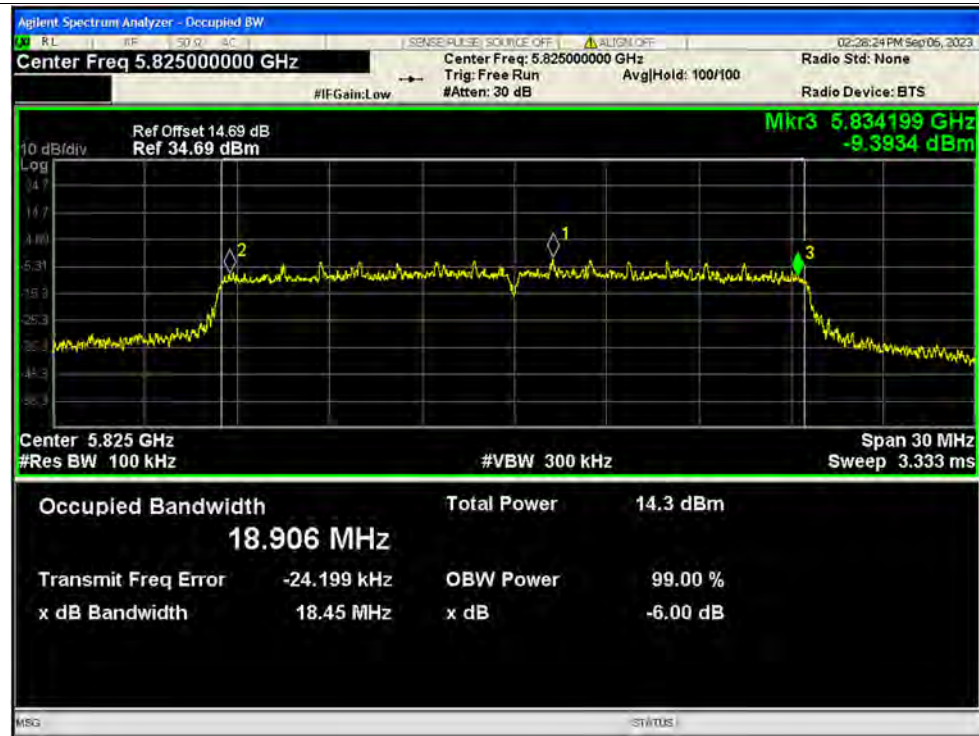
-6dB Bandwidth NVNT ax20 5785MHz Ant1 MIMO



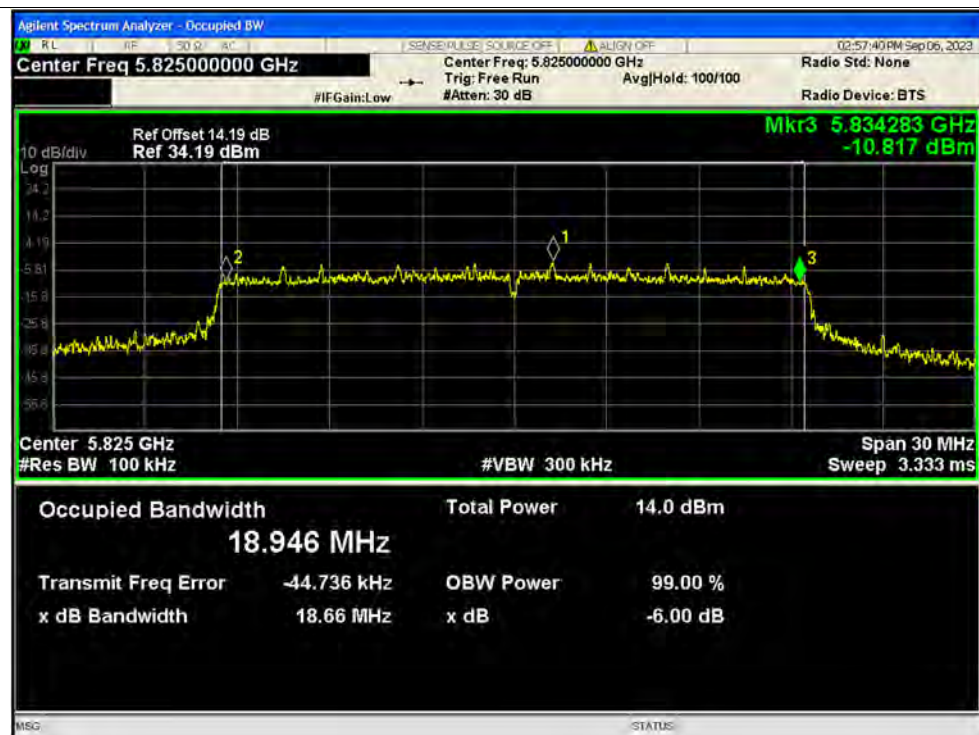
-6dB Bandwidth NVNT ax20 5785MHz Ant2 MIMO



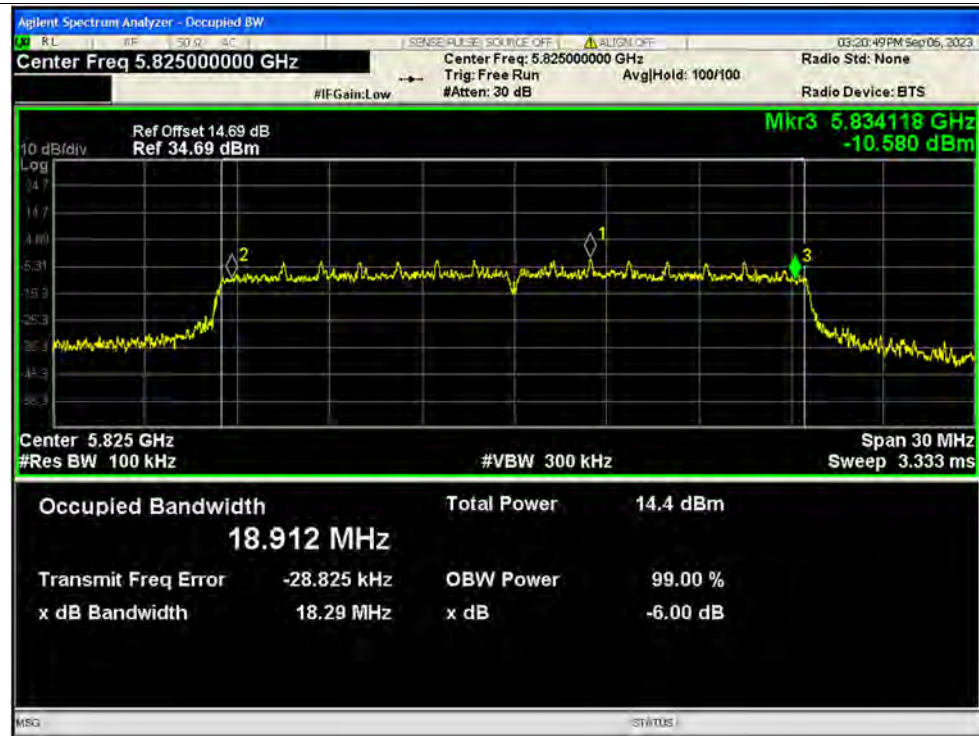
-6dB Bandwidth NVNT ax20 5825MHz Ant1 SISO



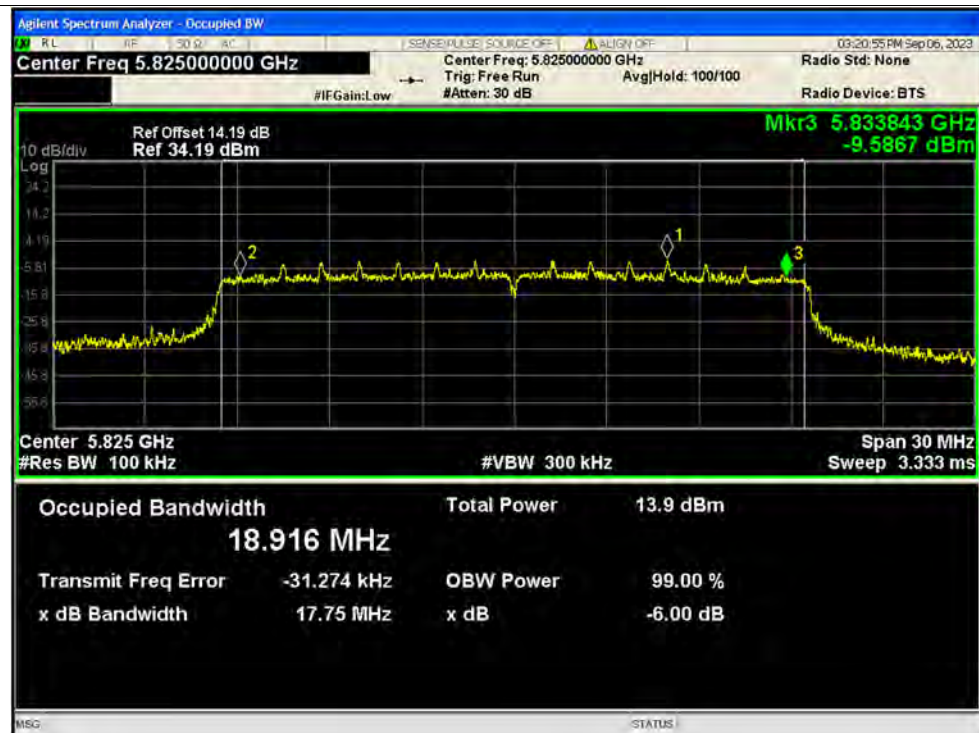
-6dB Bandwidth NVNT ax20 5825MHz Ant2 SISO



-6dB Bandwidth NVNT ax20 5825MHz Ant1 MIMO

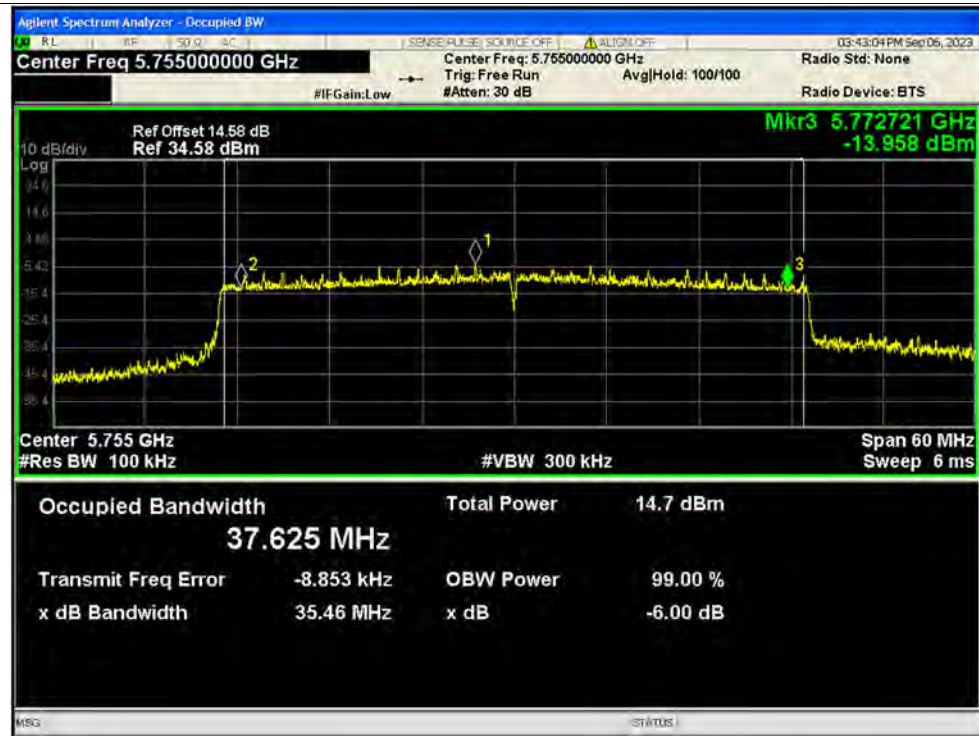


-6dB Bandwidth NVNT ax20 5825MHz Ant2 MIMO

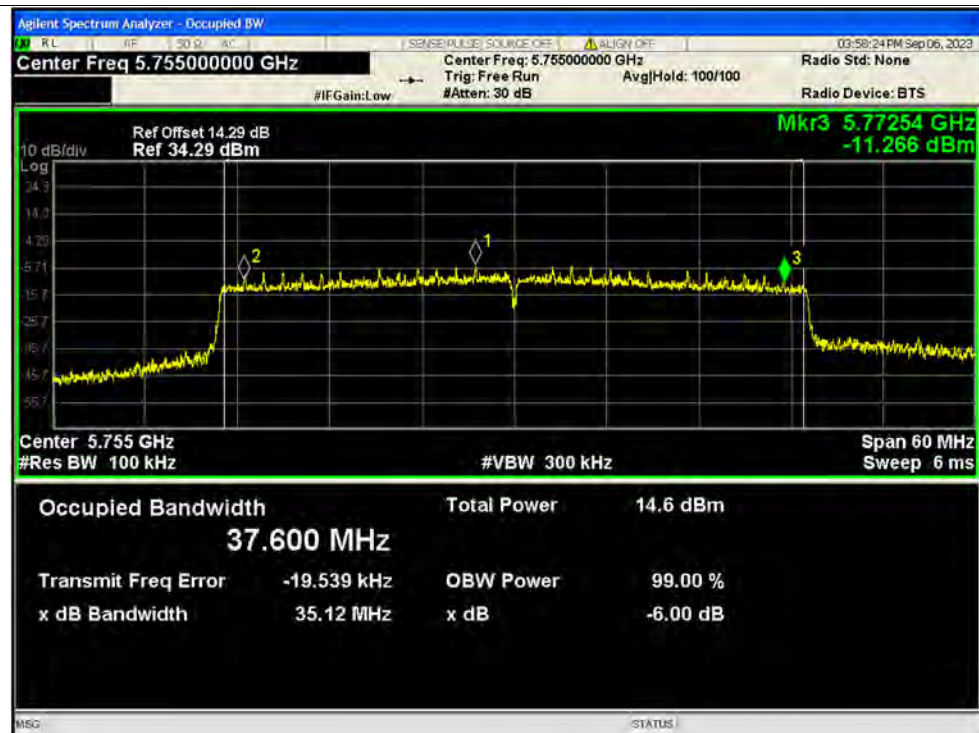




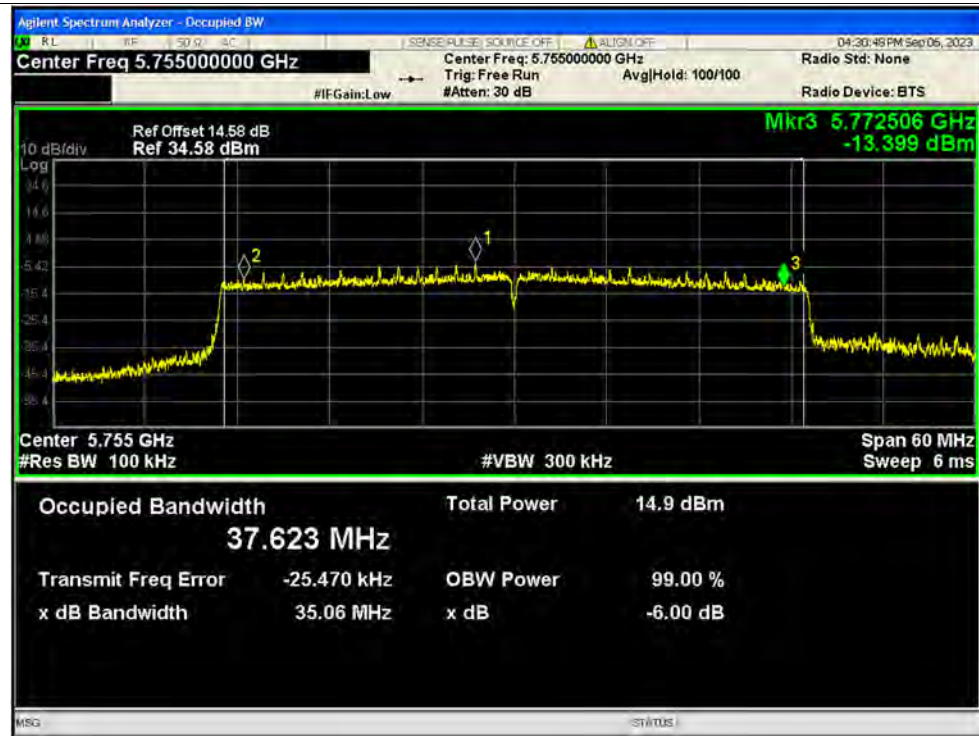
-6dB Bandwidth NVNT ax40 5755MHz Ant1 SISO



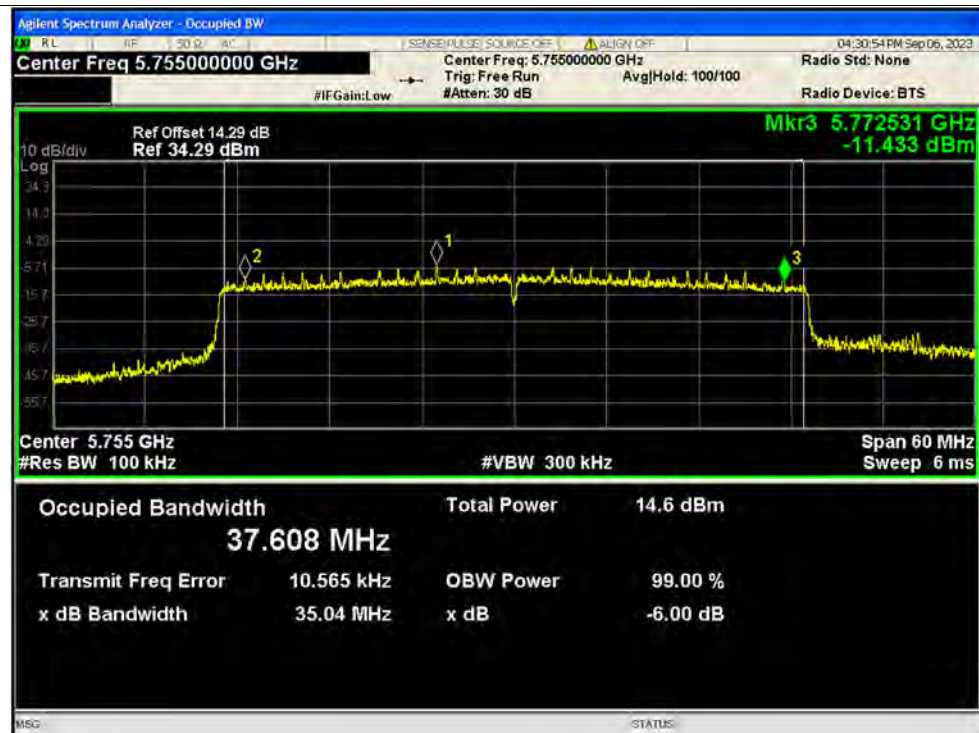
-6dB Bandwidth NVNT ax40 5755MHz Ant2 SISO



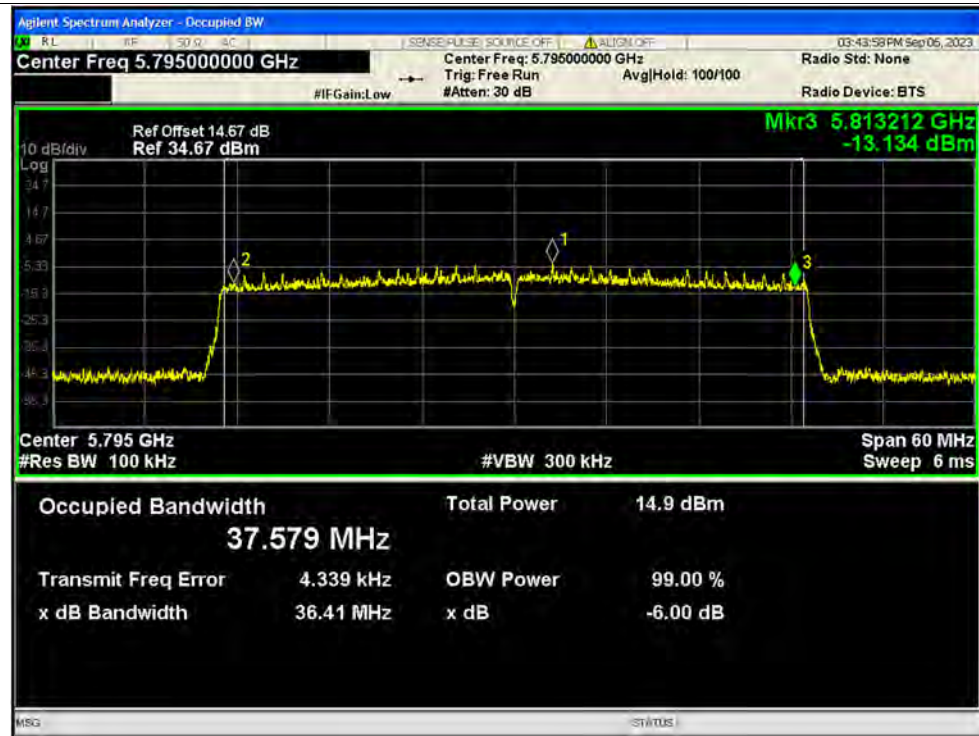
-6dB Bandwidth NVNT ax40 5755MHz Ant1 MIMO



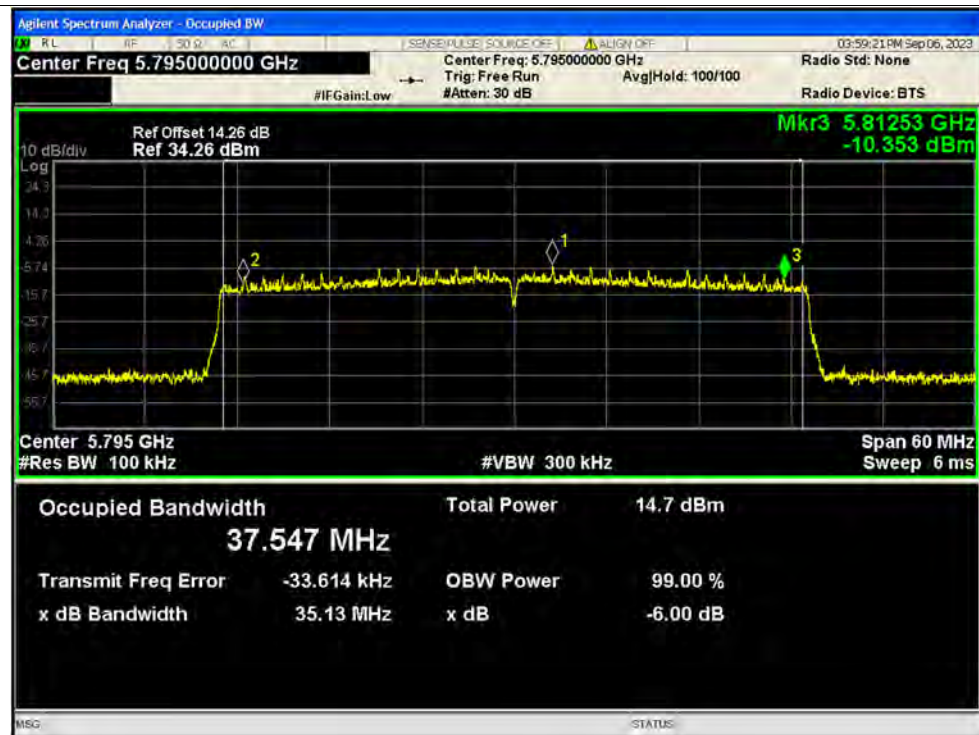
-6dB Bandwidth NVNT ax40 5755MHz Ant2 MIMO



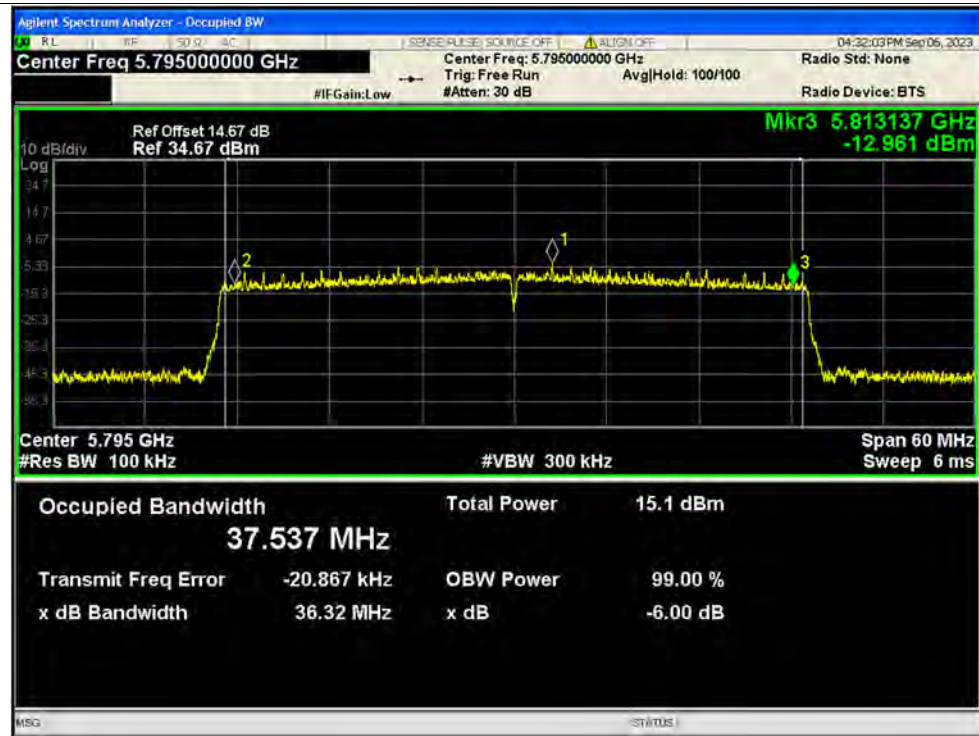
-6dB Bandwidth NVNT ax40 5795MHz Ant1 SISO



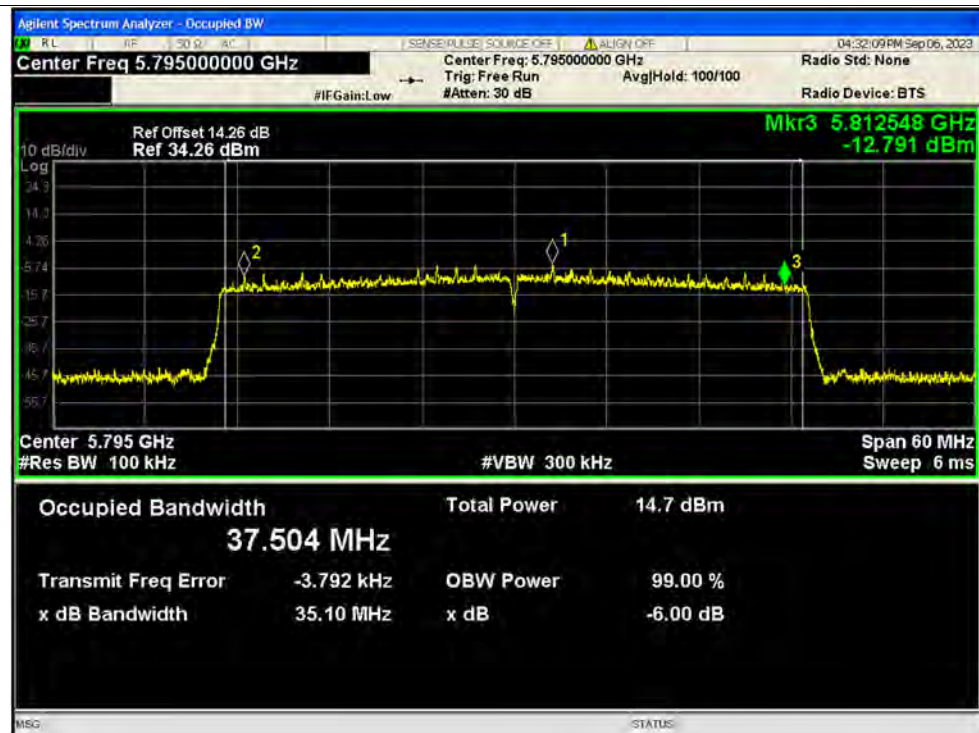
-6dB Bandwidth NVNT ax40 5795MHz Ant2 SISO



-6dB Bandwidth NVNT ax40 5795MHz Ant1 MIMO

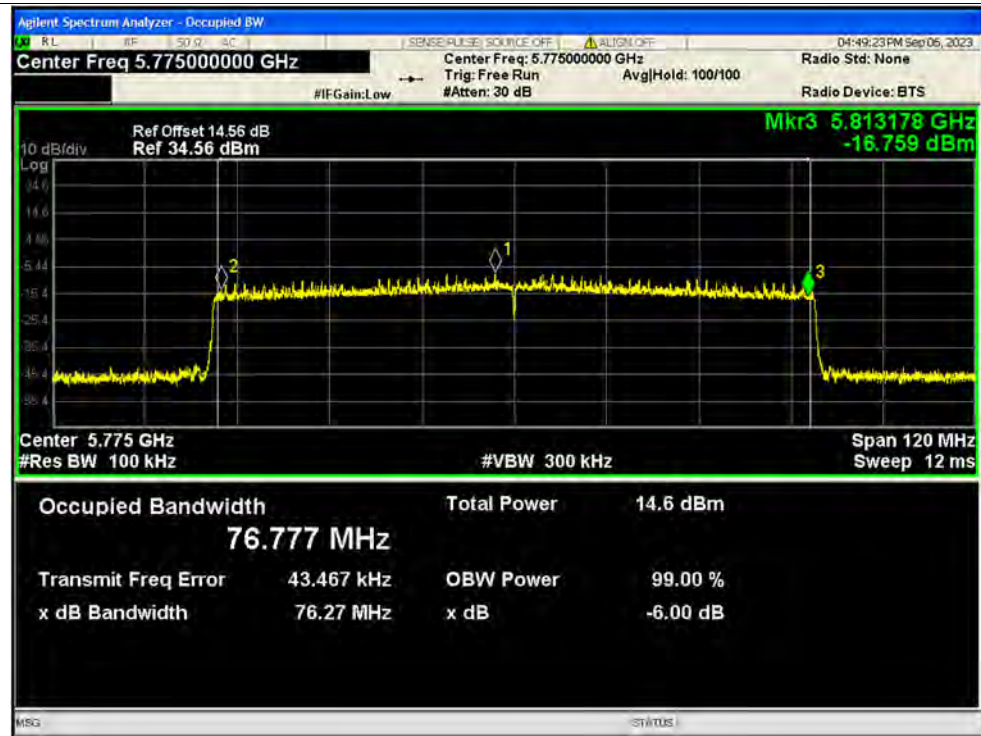


-6dB Bandwidth NVNT ax40 5795MHz Ant2 MIMO

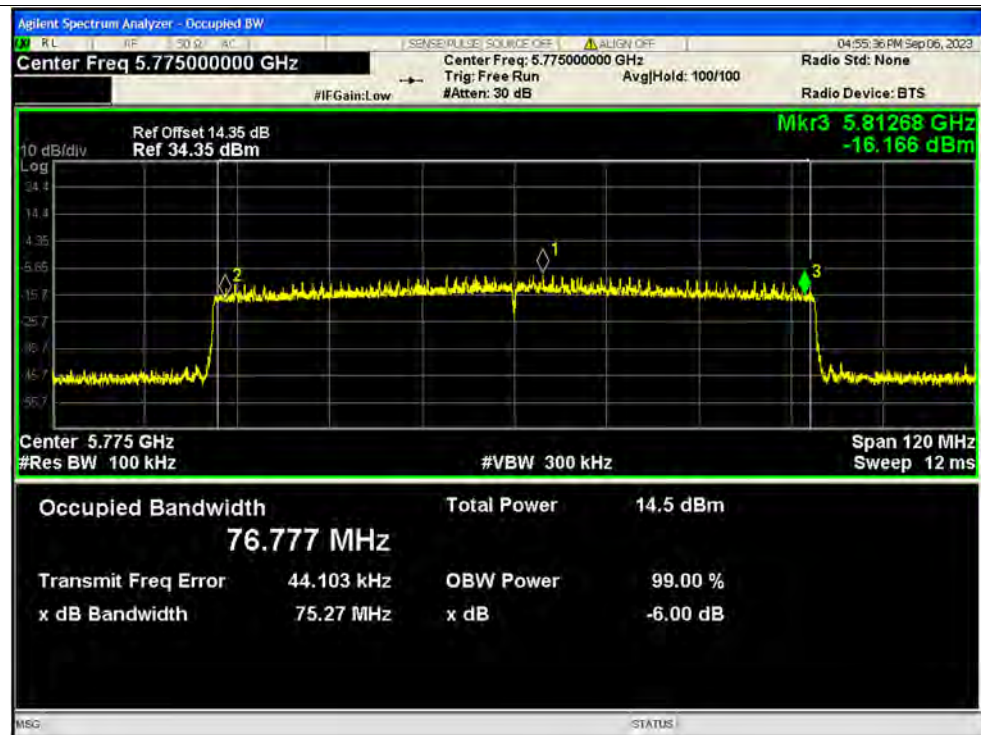




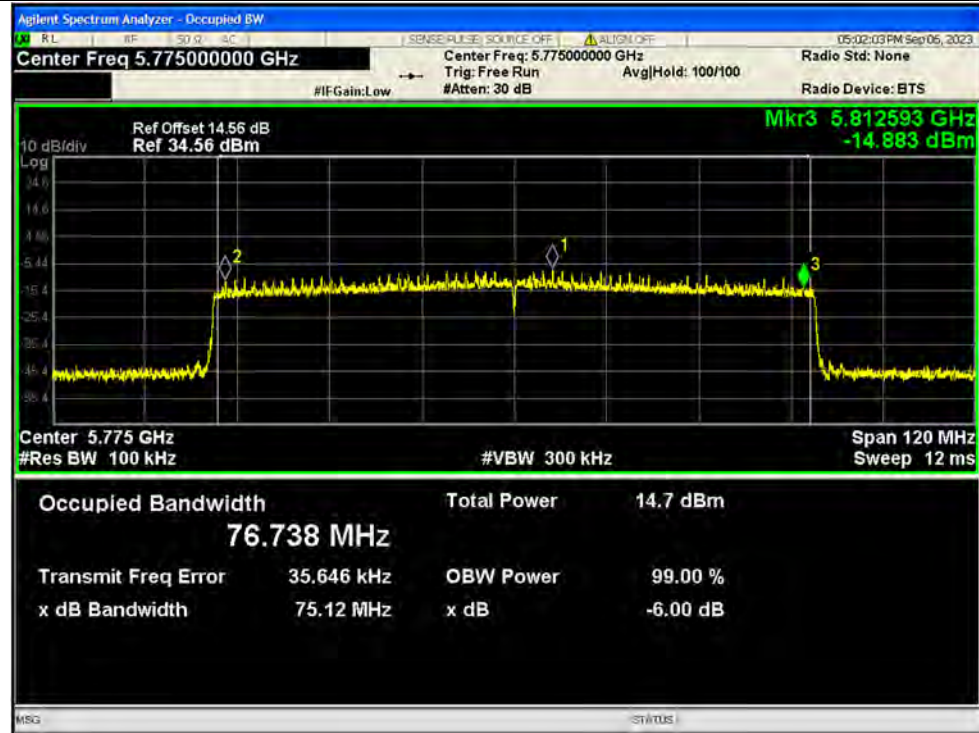
-6dB Bandwidth NVNT ax80 5775MHz Ant1 SISO



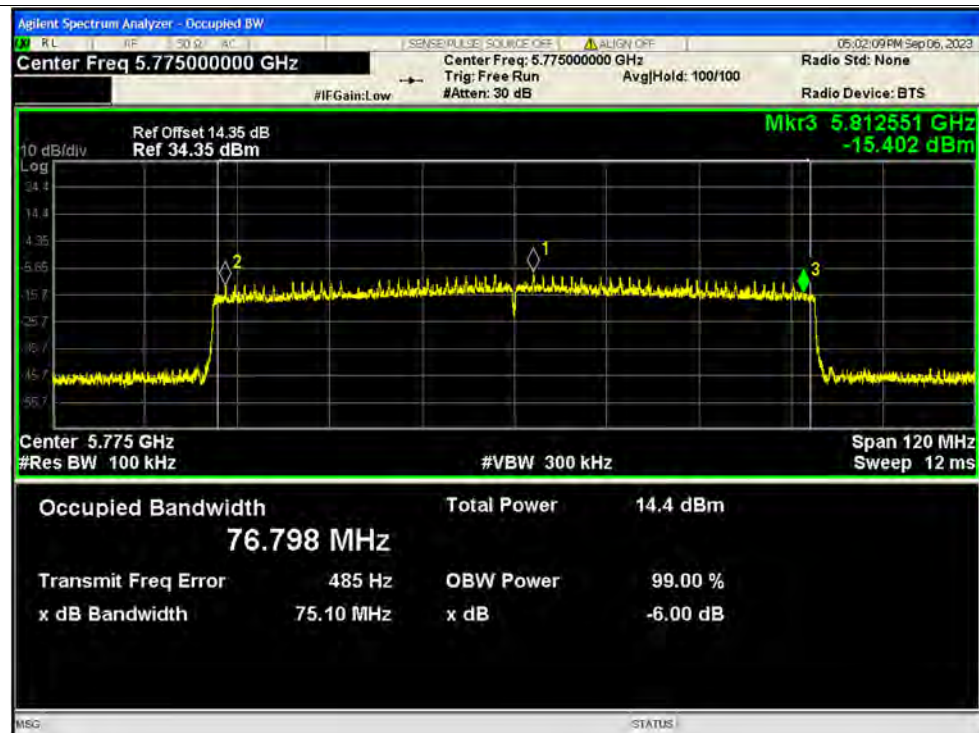
-6dB Bandwidth NVNT ax80 5775MHz Ant2 SISO



-6dB Bandwidth NVNT ax80 5775MHz Ant1 MIMO



-6dB Bandwidth NVNT ax80 5775MHz Ant2 MIMO



**A.4. Peak Power Spectral Density**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a SISO	5180	Ant1	3.9	0.17	4.07	17	Pass
NVNT	a SISO	5180	Ant2	3.75	0.18	3.93	17	Pass
NVNT	a SISO	5220	Ant1	4.31	0.18	4.49	17	Pass
NVNT	a SISO	5220	Ant2	4.08	0.17	4.25	17	Pass
NVNT	a SISO	5240	Ant1	3.95	0.18	4.13	17	Pass
NVNT	a SISO	5240	Ant2	4.01	0.17	4.18	17	Pass
NVNT	a SISO	5745	Ant1	-4.23	0.18	-4.05	30	Pass
NVNT	a SISO	5745	Ant2	-4.43	0.17	-4.26	30	Pass
NVNT	a SISO	5785	Ant1	-3.61	0.17	-3.44	30	Pass
NVNT	a SISO	5785	Ant2	-3.95	0.18	-3.77	30	Pass
NVNT	a SISO	5825	Ant1	-4.16	0.18	-3.98	30	Pass
NVNT	a SISO	5825	Ant2	-4.6	0.18	-4.42	30	Pass
NVNT	n20 SISO	5180	Ant1	2.06	0.18	2.24	17	Pass
NVNT	n20 SISO	5180	Ant2	2.05	0.19	2.24	17	Pass
NVNT	n20 MIMO	5180	Ant1	2.19	0.36	2.55	17	Pass
NVNT	n20 MIMO	5180	Ant2	2.09	0.36	2.45	17	Pass
NVNT	n20 MIMO	5180	Sum	NaN	NaN	5.51	17	Pass
NVNT	n20 SISO	5220	Ant1	2.5	0.19	2.69	17	Pass
NVNT	n20 SISO	5220	Ant2	2.59	0.18	2.77	17	Pass
NVNT	n20 MIMO	5220	Ant1	2.54	0.35	2.89	17	Pass
NVNT	n20 MIMO	5220	Ant2	2.7	0.35	3.05	17	Pass
NVNT	n20 MIMO	5220	Sum	NaN	NaN	5.98	17	Pass
NVNT	n20 SISO	5240	Ant1	2.38	0.19	2.57	17	Pass
NVNT	n20 SISO	5240	Ant2	2.24	0.18	2.42	17	Pass
NVNT	n20 MIMO	5240	Ant1	2.31	0.36	2.67	17	Pass
NVNT	n20 MIMO	5240	Ant2	2.18	0.36	2.54	17	Pass
NVNT	n20 MIMO	5240	Sum	NaN	NaN	5.61	17	Pass
NVNT	n20 SISO	5745	Ant1	-6.05	0.19	-5.86	30	Pass
NVNT	n20 SISO	5745	Ant2	-6.26	0.18	-6.08	30	Pass
NVNT	n20 MIMO	5745	Ant1	-6.18	0.36	-5.82	30	Pass
NVNT	n20 MIMO	5745	Ant2	-6.36	0.36	-6	30	Pass
NVNT	n20 MIMO	5745	Sum	NaN	NaN	-2.92	30	Pass
NVNT	n20 SISO	5785	Ant1	-5.45	0.18	-5.27	30	Pass
NVNT	n20 SISO	5785	Ant2	-5.43	0.19	-5.24	30	Pass



NVNT	n20 MIMO	5785	Ant1	-5.53	0.36	-5.17	30	Pass
NVNT	n20 MIMO	5785	Ant2	-5.59	0.36	-5.23	30	Pass
NVNT	n20 MIMO	5785	Sum	NaN	NaN	-2.22	30	Pass
NVNT	n20 SISO	5825	Ant1	-6.05	0.19	-5.86	30	Pass
NVNT	n20 SISO	5825	Ant2	-6.19	0.18	-6.01	30	Pass
NVNT	n20 MIMO	5825	Ant1	-6.12	0.35	-5.77	30	Pass
NVNT	n20 MIMO	5825	Ant2	-6.3	0.35	-5.95	30	Pass
NVNT	n20 MIMO	5825	Sum	NaN	NaN	-2.84	30	Pass
NVNT	n40 SISO	5190	Ant1	-0.06	0.37	0.31	17	Pass
NVNT	n40 SISO	5190	Ant2	-0.57	0.37	-0.2	17	Pass
NVNT	n40 MIMO	5190	Ant1	-0.7	0.65	-0.05	17	Pass
NVNT	n40 MIMO	5190	Ant2	-0.58	0.65	0.07	17	Pass
NVNT	n40 MIMO	5190	Sum	NaN	NaN	3.01	17	Pass
NVNT	n40 SISO	5230	Ant1	-0.27	0.36	0.09	17	Pass
NVNT	n40 SISO	5230	Ant2	0.02	0.37	0.39	17	Pass
NVNT	n40 MIMO	5230	Ant1	-0.39	0.65	0.27	17	Pass
NVNT	n40 MIMO	5230	Ant2	-0.22	0.65	0.43	17	Pass
NVNT	n40 MIMO	5230	Sum	NaN	NaN	3.36	17	Pass
NVNT	n40 SISO	5755	Ant1	-8.36	0.36	-8	30	Pass
NVNT	n40 SISO	5755	Ant2	-8.71	0.37	-8.34	30	Pass
NVNT	n40 MIMO	5755	Ant1	-8.59	0.65	-7.94	30	Pass
NVNT	n40 MIMO	5755	Ant2	-8.66	0.65	-8.01	30	Pass
NVNT	n40 MIMO	5755	Sum	NaN	NaN	-4.95	30	Pass
NVNT	n40 SISO	5795	Ant1	-8.22	0.36	-7.86	30	Pass
NVNT	n40 SISO	5795	Ant2	-8.43	0.37	-8.06	30	Pass
NVNT	n40 MIMO	5795	Ant1	-8.43	0.67	-7.76	30	Pass
NVNT	n40 MIMO	5795	Ant2	-8.29	0.67	-7.62	30	Pass
NVNT	n40 MIMO	5795	Sum	NaN	NaN	-4.69	30	Pass
NVNT	ac20 SISO	5180	Ant1	1.83	0.48	2.31	17	Pass
NVNT	ac20 SISO	5180	Ant2	1.98	0.48	2.46	17	Pass
NVNT	ac20 MIMO	5180	Ant1	2.13	0.34	2.47	17	Pass
NVNT	ac20 MIMO	5180	Ant2	2.09	0.34	2.43	17	Pass
NVNT	ac20 MIMO	5180	Sum	NaN	NaN	5.47	17	Pass
NVNT	ac20 SISO	5220	Ant1	2.18	0.48	2.66	17	Pass
NVNT	ac20 SISO	5220	Ant2	2.4	0.5	2.9	17	Pass
NVNT	ac20 MIMO	5220	Ant1	2.66	0.34	3	17	Pass
NVNT	ac20 MIMO	5220	Ant2	2.58	0.34	2.92	17	Pass
NVNT	ac20 MIMO	5220	Sum	NaN	NaN	5.97	17	Pass



NVNT	ac20 SISO	5240	Ant1	2.04	0.5	2.54	17	Pass
NVNT	ac20 SISO	5240	Ant2	2.22	0.48	2.7	17	Pass
NVNT	ac20 MIMO	5240	Ant1	2.33	0.35	2.68	17	Pass
NVNT	ac20 MIMO	5240	Ant2	2.59	0.35	2.94	17	Pass
NVNT	ac20 MIMO	5240	Sum	NaN	NaN	5.82	17	Pass
NVNT	ac20 SISO	5745	Ant1	-6.27	0.5	-5.77	30	Pass
NVNT	ac20 SISO	5745	Ant2	-6.42	0.5	-5.92	30	Pass
NVNT	ac20 MIMO	5745	Ant1	-6.07	0.34	-5.73	30	Pass
NVNT	ac20 MIMO	5745	Ant2	-6.16	0.34	-5.82	30	Pass
NVNT	ac20 MIMO	5745	Sum	NaN	NaN	-2.76	30	Pass
NVNT	ac20 SISO	5785	Ant1	-5.72	0.48	-5.24	30	Pass
NVNT	ac20 SISO	5785	Ant2	-5.25	0.48	-4.77	30	Pass
NVNT	ac20 MIMO	5785	Ant1	-5.55	0.34	-5.21	30	Pass
NVNT	ac20 MIMO	5785	Ant2	-5.46	0.34	-5.12	30	Pass
NVNT	ac20 MIMO	5785	Sum	NaN	NaN	-2.15	30	Pass
NVNT	ac20 SISO	5825	Ant1	-6.18	0.48	-5.7	30	Pass
NVNT	ac20 SISO	5825	Ant2	-6.36	0.48	-5.88	30	Pass
NVNT	ac20 MIMO	5825	Ant1	-5.92	0.34	-5.58	30	Pass
NVNT	ac20 MIMO	5825	Ant2	-6.25	0.34	-5.91	30	Pass
NVNT	ac20 MIMO	5825	Sum	NaN	NaN	-2.76	30	Pass
NVNT	ac40 SISO	5190	Ant1	-0.25	0.36	0.11	17	Pass
NVNT	ac40 SISO	5190	Ant2	-0.69	0.37	-0.32	17	Pass
NVNT	ac40 MIMO	5190	Ant1	-0.64	0.66	0.02	17	Pass
NVNT	ac40 MIMO	5190	Ant2	-0.6	0.66	0.06	17	Pass
NVNT	ac40 MIMO	5190	Sum	NaN	NaN	3.05	17	Pass
NVNT	ac40 SISO	5230	Ant1	-0.1	0.37	0.27	17	Pass
NVNT	ac40 SISO	5230	Ant2	-0.23	0.36	0.13	17	Pass
NVNT	ac40 MIMO	5230	Ant1	-0.34	0.64	0.3	17	Pass
NVNT	ac40 MIMO	5230	Ant2	-0.34	0.64	0.31	17	Pass
NVNT	ac40 MIMO	5230	Sum	NaN	NaN	3.3	17	Pass
NVNT	ac40 SISO	5755	Ant1	-8.39	0.37	-8.02	30	Pass
NVNT	ac40 SISO	5755	Ant2	-8.51	0.36	-8.15	30	Pass
NVNT	ac40 MIMO	5755	Ant1	-8.33	0.66	-7.67	30	Pass
NVNT	ac40 MIMO	5755	Ant2	-8.95	0.66	-8.29	30	Pass
NVNT	ac40 MIMO	5755	Sum	NaN	NaN	-4.95	30	Pass
NVNT	ac40 SISO	5795	Ant1	-8.17	0.36	-7.81	30	Pass
NVNT	ac40 SISO	5795	Ant2	-8.44	0.37	-8.07	30	Pass
NVNT	ac40 MIMO	5795	Ant1	-8.1	0.64	-7.46	30	Pass



NVNT	ac40 MIMO	5795	Ant2	-8.46	0.64	-7.82	30	Pass
NVNT	ac40 MIMO	5795	Sum	NaN	NaN	-4.69	30	Pass
NVNT	ac80 SISO	5210	Ant1	-4.69	1.13	-3.56	17	Pass
NVNT	ac80 SISO	5210	Ant2	-4.6	0.69	-3.91	17	Pass
NVNT	ac80 MIMO	5210	Ant1	-4.75	1.17	-3.58	17	Pass
NVNT	ac80 MIMO	5210	Ant2	-4.74	1.17	-3.57	17	Pass
NVNT	ac80 MIMO	5210	Sum	NaN	NaN	-0.56	17	Pass
NVNT	ac80 SISO	5775	Ant1	-12.19	1.13	-11.06	30	Pass
NVNT	ac80 SISO	5775	Ant2	-11.98	0.69	-11.29	30	Pass
NVNT	ac80 MIMO	5775	Ant1	-12.32	1.13	-11.19	30	Pass
NVNT	ac80 MIMO	5775	Ant2	-12.24	1.13	-11.11	30	Pass
NVNT	ac80 MIMO	5775	Sum	NaN	NaN	-8.24	30	Pass
NVNT	ax20 SISO	5180	Ant1	1.73	0.53	2.26	17	Pass
NVNT	ax20 SISO	5180	Ant2	1.77	0.55	2.32	17	Pass
NVNT	ax20 MIMO	5180	Ant1	1.31	1.05	2.36	17	Pass
NVNT	ax20 MIMO	5180	Ant2	1.01	1.05	2.06	17	Pass
NVNT	ax20 MIMO	5180	Sum	NaN	NaN	5.22	17	Pass
NVNT	ax20 SISO	5220	Ant1	2.08	0.55	2.63	17	Pass
NVNT	ax20 SISO	5220	Ant2	2.57	0.53	3.1	17	Pass
NVNT	ax20 MIMO	5220	Ant1	1.8	1.05	2.85	17	Pass
NVNT	ax20 MIMO	5220	Ant2	1.74	1.05	2.79	17	Pass
NVNT	ax20 MIMO	5220	Sum	NaN	NaN	5.83	17	Pass
NVNT	ax20 SISO	5240	Ant1	1.97	0.55	2.52	17	Pass
NVNT	ax20 SISO	5240	Ant2	2.32	0.53	2.85	17	Pass
NVNT	ax20 MIMO	5240	Ant1	1.93	1.05	2.98	17	Pass
NVNT	ax20 MIMO	5240	Ant2	1.79	1.05	2.84	17	Pass
NVNT	ax20 MIMO	5240	Sum	NaN	NaN	5.92	17	Pass
NVNT	ax20 SISO	5745	Ant1	-6.54	0.55	-5.99	30	Pass
NVNT	ax20 SISO	5745	Ant2	-6.59	0.53	-6.06	30	Pass
NVNT	ax20 MIMO	5745	Ant1	-6.62	1.05	-5.57	30	Pass
NVNT	ax20 MIMO	5745	Ant2	-6.82	1.05	-5.77	30	Pass
NVNT	ax20 MIMO	5745	Sum	NaN	NaN	-2.68	30	Pass
NVNT	ax20 SISO	5785	Ant1	-6.03	0.55	-5.48	30	Pass
NVNT	ax20 SISO	5785	Ant2	-5.46	0.53	-4.93	30	Pass
NVNT	ax20 MIMO	5785	Ant1	-6.14	1.05	-5.09	30	Pass
NVNT	ax20 MIMO	5785	Ant2	-6.34	1.05	-5.29	30	Pass
NVNT	ax20 MIMO	5785	Sum	NaN	NaN	-2.15	30	Pass
NVNT	ax20 SISO	5825	Ant1	-6.31	0.53	-5.78	30	Pass



NVNT	ax20 SISO	5825	Ant2	-6.67	0.53	-6.14	30	Pass
NVNT	ax20 MIMO	5825	Ant1	-6.71	1.05	-5.66	30	Pass
NVNT	ax20 MIMO	5825	Ant2	-6.95	1.05	-5.9	30	Pass
NVNT	ax20 MIMO	5825	Sum	NaN	NaN	-2.76	30	Pass
NVNT	ax40 SISO	5190	Ant1	-0.78	0.72	-0.06	17	Pass
NVNT	ax40 SISO	5190	Ant2	-1.07	0.72	-0.35	17	Pass
NVNT	ax40 MIMO	5190	Ant1	-0.26	0.43	0.17	17	Pass
NVNT	ax40 MIMO	5190	Ant2	-0.29	0.43	0.14	17	Pass
NVNT	ax40 MIMO	5190	Sum	NaN	NaN	3.16	17	Pass
NVNT	ax40 SISO	5230	Ant1	-0.35	0.74	0.39	17	Pass
NVNT	ax40 SISO	5230	Ant2	-0.48	0.72	0.24	17	Pass
NVNT	ax40 MIMO	5230	Ant1	0.06	0.42	0.48	17	Pass
NVNT	ax40 MIMO	5230	Ant2	0.23	0.42	0.65	17	Pass
NVNT	ax40 MIMO	5230	Sum	NaN	NaN	3.58	17	Pass
NVNT	ax40 SISO	5755	Ant1	-8.56	0.74	-7.82	30	Pass
NVNT	ax40 SISO	5755	Ant2	-9.02	0.72	-8.3	30	Pass
NVNT	ax40 MIMO	5755	Ant1	-8.17	0.42	-7.75	30	Pass
NVNT	ax40 MIMO	5755	Ant2	-8.31	0.42	-7.89	30	Pass
NVNT	ax40 MIMO	5755	Sum	NaN	NaN	-4.81	30	Pass
NVNT	ax40 SISO	5795	Ant1	-8.43	0.74	-7.69	30	Pass
NVNT	ax40 SISO	5795	Ant2	-8.51	0.74	-7.77	30	Pass
NVNT	ax40 MIMO	5795	Ant1	-7.92	0.43	-7.49	30	Pass
NVNT	ax40 MIMO	5795	Ant2	-7.88	0.43	-7.45	30	Pass
NVNT	ax40 MIMO	5795	Sum	NaN	NaN	-4.44	30	Pass
NVNT	ax80 SISO	5210	Ant1	-4.55	1.15	-3.4	17	Pass
NVNT	ax80 SISO	5210	Ant2	-4.43	0.78	-3.65	17	Pass
NVNT	ax80 MIMO	5210	Ant1	-4.39	1.15	-3.24	17	Pass
NVNT	ax80 MIMO	5210	Ant2	-4.71	1.15	-3.56	17	Pass
NVNT	ax80 MIMO	5210	Sum	NaN	NaN	-0.41	17	Pass
NVNT	ax80 SISO	5775	Ant1	-11.49	0.57	-10.92	30	Pass
NVNT	ax80 SISO	5775	Ant2	-11.71	0.78	-10.93	30	Pass
NVNT	ax80 MIMO	5775	Ant1	-12.12	1.15	-10.97	30	Pass
NVNT	ax80 MIMO	5775	Ant2	-12.04	1.15	-10.89	30	Pass
NVNT	ax80 MIMO	5775	Sum	NaN	NaN	-7.96	30	Pass